

# City of Pullman Comprehensive Plan Update

## Existing Conditions and Future Forecast Final Technical Memorandum



January 26, 2018



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## List of Acronyms

ADA	Americans with Disabilities Act
ARC	Airport Reference Code
DAR	Dial-A-Ride
DEA	David Evans and Associates, Inc.
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
IPZ	Innovation Partnership Zone
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resource Conservation Service
NRPA	National Recreation and Park Association
OFM	Office of Financial Management (State of Washington)
PCC	Palouse River and Coulee City
PUW	Pullman-Moscow Regional Airport
SEA	Seattle-Tacoma International Airport
SEWEDA	Southeast Washington Economic Development Association
SFCC	Spokane Falls Community College
SFPR	South Fork of the Palouse River
SMA	Shoreline Management Act
SR	State Route
SWMP	Stormwater Management Program
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WA DOR	Washington State Department of Revenue
WSDOT	Washington State Department of Transportation
WSU	Washington State University

## Introduction

The City of Pullman's current Comprehensive Plan was adopted in 1999, and amendments related to population forecasts, the Land Use Plan Map and associated policies adopted in 2013 have followed. Because of the age of the current plan, the City has contracted with David Evans and Associates, Inc. (DEA) to assist in a full update to the Comprehensive Plan.

This report provides a compilation of baseline, existing conditions within the City of Pullman and its Urban Growth Area, as well as future population and employment forecasts. It is the first in a series of technical memoranda intended to document the plan development process. This report is foundational to subsequent planning outreach efforts necessary to develop an Updated Comprehensive Plan for the City of Pullman. When completed, the City's Updated Comprehensive Plan will be relevant to the issues facing Pullman today and into the future, and will serve as policy blueprint to guide growth and development within the City for a 20- to 50-year planning horizon, in a manner that reflects the collective values and vision of the community as a whole.

## Location

Located in southeastern Washington, the City of Pullman is nestled in the rolling hills of the Palouse in eastern Whitman County, surrounded by prime agricultural land producing principally wheat, lentils and other legumes. The City was incorporated under territorial law in 1888 with a population of 250 to 300 people. Today, encompassing more than 10 square miles with a population of 32,110,<sup>1</sup> Pullman is the largest city in Whitman County, and home to Washington State University (WSU) and Schweitzer Engineering Laboratories.

Pullman is located at the confluence of Missouri Flat Creek, Dry Fork Creek and the South Fork of the Palouse River. As seen in the location map (**Figure 1**), it is approximately 75 miles south of Spokane, Washington; approximately 9 miles west of Moscow, Idaho; and approximately 32 miles north of Clarkston, Washington. It is located at latitude N 46.73° and longitude W 117.17°.

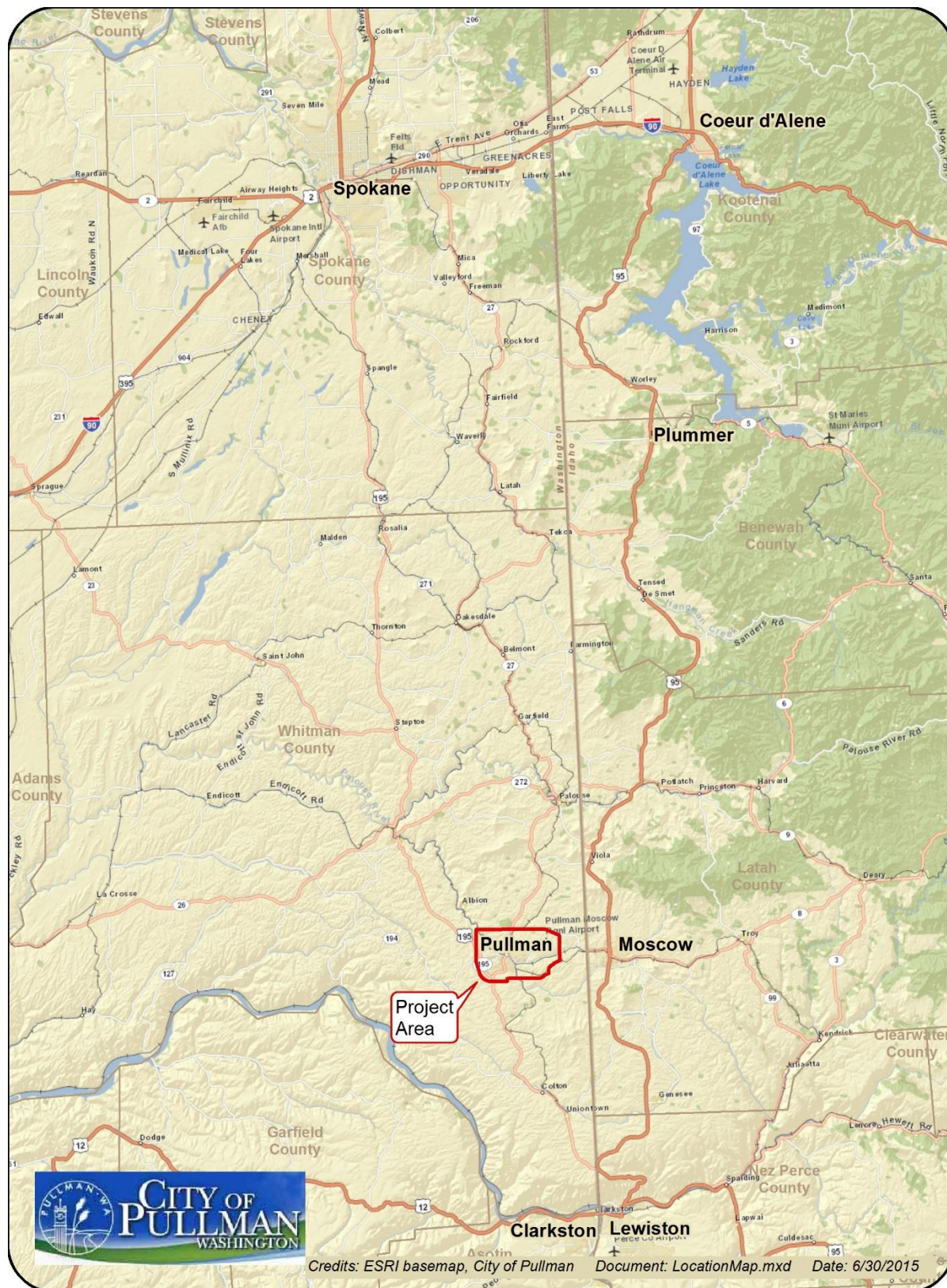
The project planning area is depicted in **Figure 2**, and includes the Urban Growth Area within unincorporated Whitman County, an area surrounding the City of Pullman that is planned to provide for future City growth through the 2060 planning horizon.

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<sup>1</sup>Washington Office of Financial Management, Population Estimates, 2015.

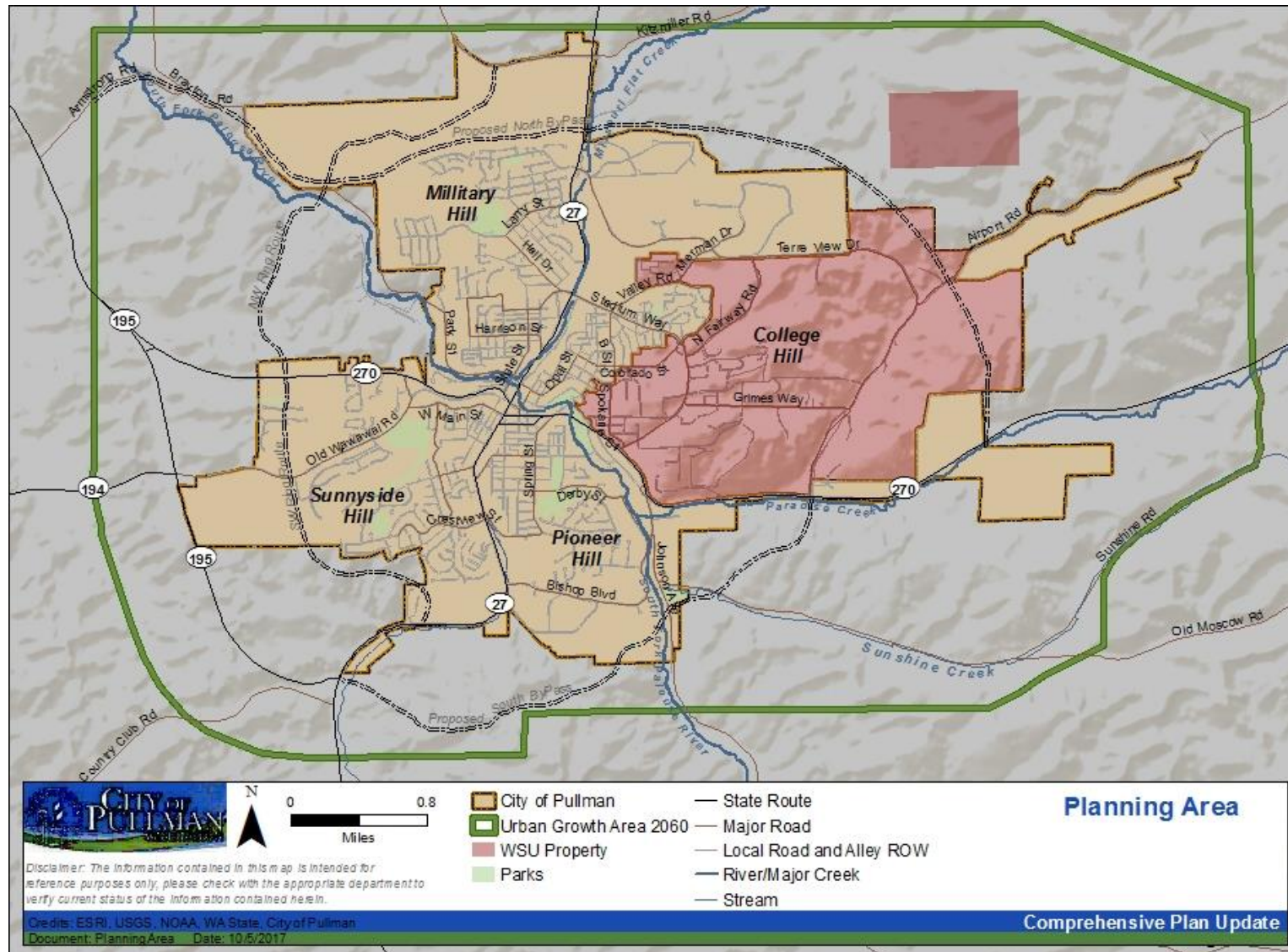


Figure 1. Location Map





**Figure 2. Pullman Planning Area**





## Population and Demographics

### Current Population and Historical Trends

According to the Washington Office of Financial Management, Pullman's June 2017 estimated population is 33,280.<sup>2</sup> Because this includes the vast majority of WSU's 20,193<sup>3</sup> undergraduate, graduate and professional students, the City's population decreases during summer months. **Figure 3** summarizes historical population trends within Whitman County and the City of Pullman, as well as WSU student enrollment.

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<sup>2</sup> Washington Office of Financial Management. *April 1, 2017 Population of Cities, Towns and Counties*, 2017.

<sup>3</sup> Washington State University, Department of Institutional Research, *Fall 2017 Census Day Headcount Enrollment*, 2017.

Figure 3. Population Trends, 1890–2017<sup>4</sup>

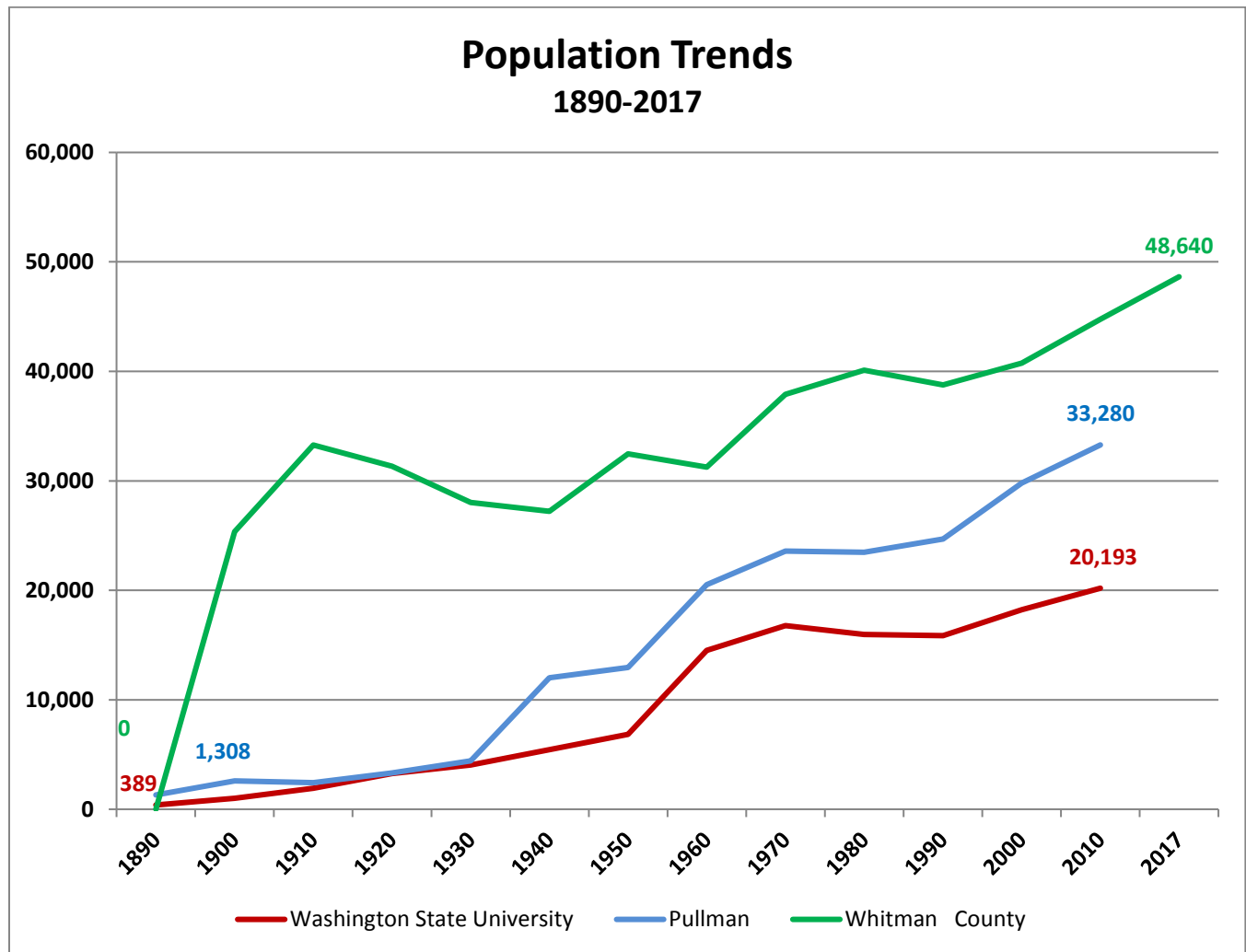


Figure 3 notes: Whitman County was formed from Stevens County in 1871. WSU was founded in 1890 and its student population began to be included in the census after 1940.

<sup>4</sup> Washington Office of Financial Management, *April 1, 2017 Population of Cities, Towns and Counties*; Washington State University *Quick Facts: WSU at a glance, 2017*.

The City of Pullman's population has grown at an average rate of 2.0% annually since 2000, though the rate of growth has slowed somewhat in the last five years, to an average rate of 1.5% per year from 2011 through 2015.

## Demographics

Graduate and undergraduate students account for 58.7% of Pullman's population, compared to a student population of 6.9% for Washington State.<sup>5</sup> Not surprisingly, given the high university student population, Pullman's median age (in years) is 21.9, substantially younger than the state of Washington's median age of 37.3 years.<sup>6</sup> **Figure 5** depicts the age distribution of the City's population, as reported by the American Community Survey for the period 2009 to 2013. Of particular note, nearly two-thirds of the population in Pullman is under the age of 24, and more than half of the population falls between the ages of 15 and 24. As can be seen in the comparison of age profiles with Washington State in **Figure 5**, Pullman has a considerably higher percentage of population over the age of 18 than in the state as a whole, but a considerably lower percentage of the population that is over the age of 21. Continuing this trend, Pullman's senior citizen population as a percentage of the entire population is also smaller than for the state as whole.

According to the 2010 Census, there were 11,029 households within the City of Pullman. Not surprisingly, given the proportion of undergraduate students, non-family households represented nearly 65% of the households in Pullman, compared to 35.6% in Washington State as a whole.<sup>7</sup>

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<sup>5</sup> U.S. Census Bureau, *ACS 2009–2013 5-Year Estimates, Selected Social Characteristics (DP-02)*, 2015.

<sup>6</sup> U.S. Census Bureau, *ACS, 2009–2013 5-Year Estimates, Demographic and Housing Estimates (DP-05)* 2015.

<sup>7</sup> U.S. Census Bureau, 2010 Decennial Census, *Profile of General Population and Housing Characteristics (DP-1)*, 2010.

Figure 4. City of Pullman Age Profile

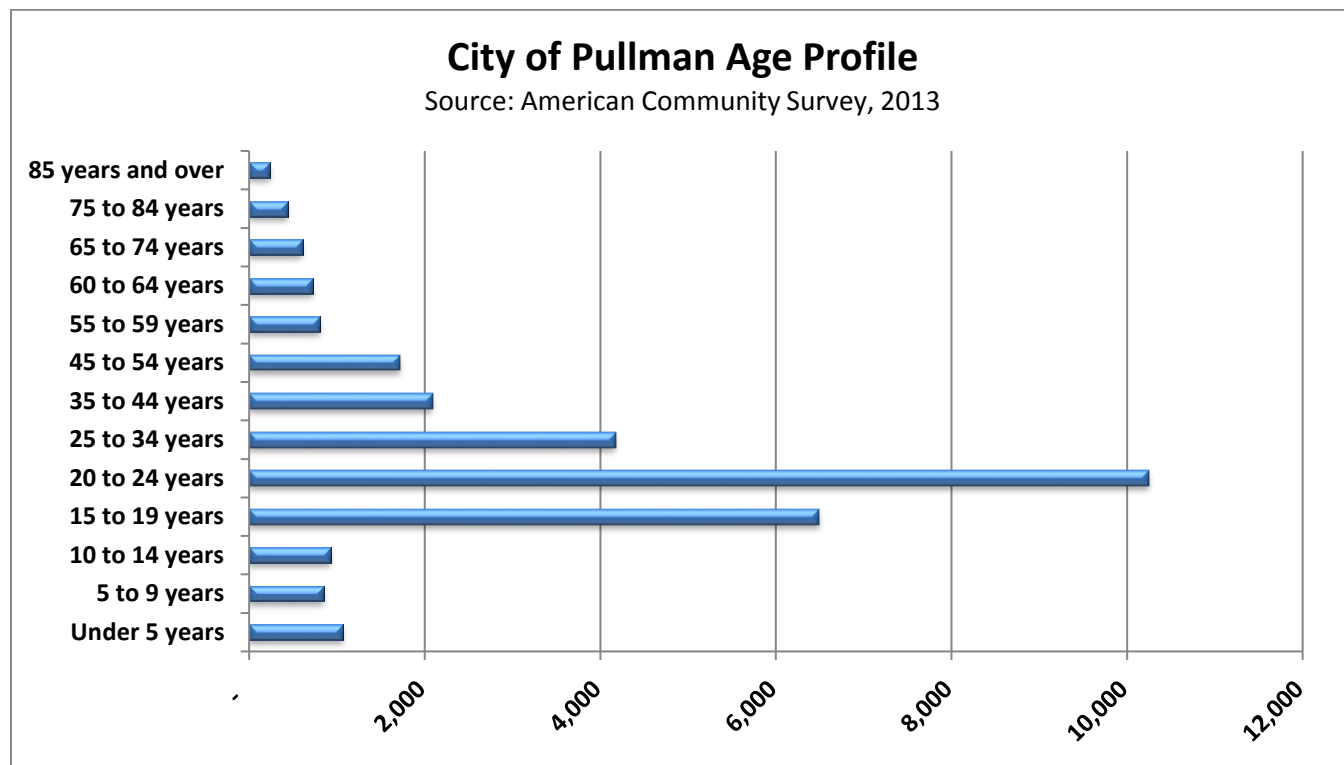
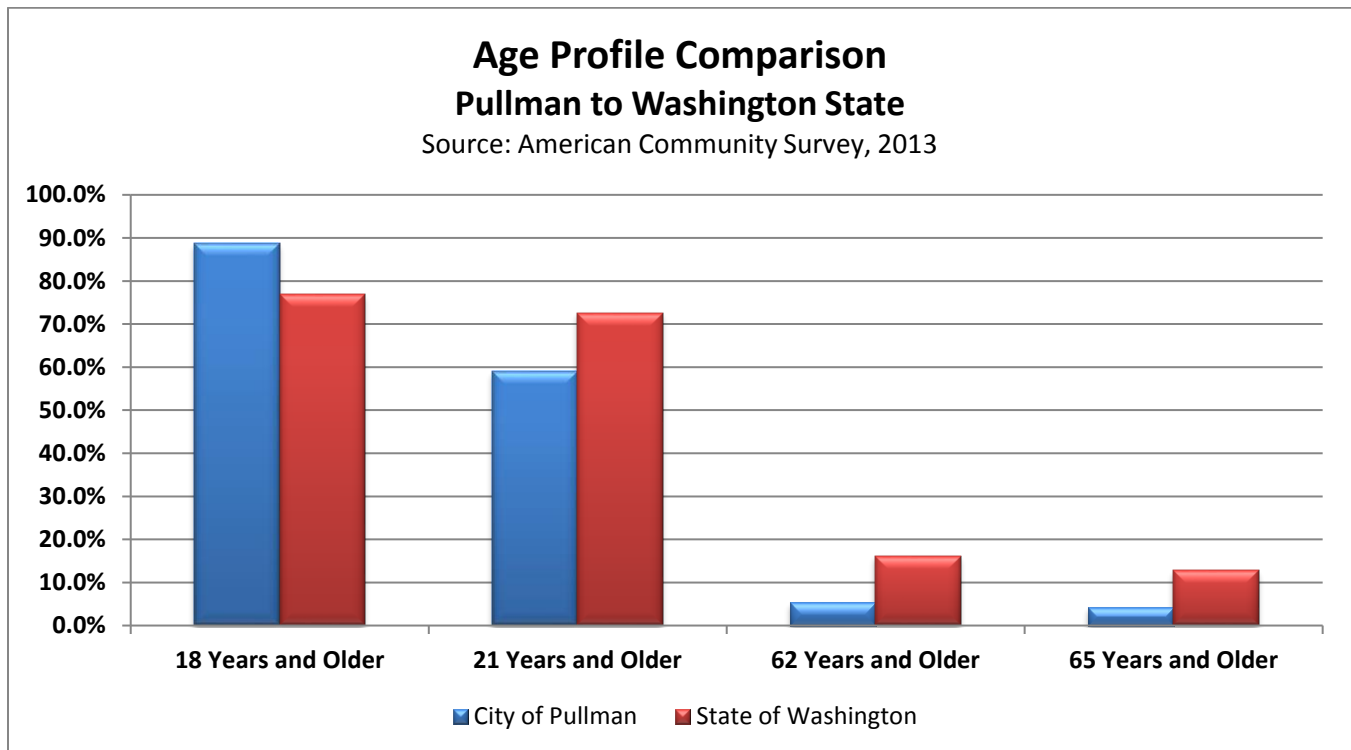




Figure 5. Pullman Age Profile Comparison to Washington State



Pullman has a well-educated population, with 66.7% of the population having a bachelor's degree or higher, compared to only 31.9% of the population within the state of Washington having attained a bachelor's degree or higher.<sup>8</sup>

Compared to Whitman County, Pullman has a more racially diverse population, with 79.4% of the population identified as white, and Hispanic or Latino populations accounting for 6.1% of the population, compared to an 84.7% white population, and a 4.9% Hispanic or Latino population for Whitman County as a whole. Pullman is somewhat less diverse than the state of Washington as whole, however; 78.5% of Washington's population is identified as white, with Hispanics and Latino populations making up 11.5%.<sup>9</sup>

Veterans account for only 3.8% of Pullman's population, compared to 11.2% state-wide. The disabled population in Pullman is also relatively less than that of Washington State, representing 5.4% of the population compared to 12.2% statewide.

## Future Projections

Future population projections were developed for the City of Pullman and Whitman County based on population trends from 1950 through 2015 and population projections from Washington Office of Financial Management's 2012 County Population Projections 2015 through 2040. **Table 1** summarizes population projections for the City of Pullman, based on projected growth in Whitman County.

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<sup>8</sup> U.S. Census Bureau, *ACS 2009–2013 5-Year Estimates, Selected Social Characteristics (DP-02)*, 2015.

<sup>9</sup> U.S. Census Bureau, *ACS, 2009–2013 5-Year Estimates, Demographic and Housing Estimates (DP-05)*, 2015.

**Table 1. Historic and Projected Population and Enrollment for Whitman County, City of Pullman and WSU, 2015–2060**

<b>Historic and Projected Population and Enrollment 2015–2060</b>			
<b>Year</b>	<b>WSU Student Enrollment<sup>10</sup></b>	<b>Whitman County<sup>11</sup></b>	<b>City of Pullman<sup>12</sup></b>
1890 <sup>13</sup>	N/a	19,109	868
1900	389	25,360	1,308
1910	1,016	33,280	2,602
1920	1,911	31,323	2,440
1930	3,270	28,014	3,322
1940	4,035	27,221	4,417
1950	5,446	32,469	12,022 <sup>14</sup>
1960	6,897	31,263	12,957
1970	14,520	37,900	20,509
1980	16,786	40,103	23,579
1990	15,970	38,775	23,478
2000	16,298	40,740	24,948
2010	18,232	44,776	29,799
2015	20,043	46,139	32,110
2020	21,150	47,826	33,740
2025	N/A	49,346	35,725
2030	26,000	50,577	37,333
2035	N/A	51,563	38,621
2040	24,000	52,504	39,850
2045	N/A	53,465	41,106
2050	32,000	54,637	42,636
2055	N/A	55,809	44,166
2060	32,000	56,980	46,000

<sup>10</sup> 1890-1990 & 2040: City of Pullman, *Comprehensive Plan*, 1999; 2000 & 2010: Washington State University Office of Institutional Research, *Enrollment by Campus, College, and Sex 1997-2011*, 2013; 2015: *Enrollment by Campus, College, and Sex 2012-2016*, 2016; 2020 & 2030: Hanbury Evans Wright Vlattas Company, *2012 Pullman Campus Master Plan Update, Volume 2*, 2012. All figures represent fall enrollment for the Pullman campus.

<sup>11</sup> 1900-2010: Washington State Office of Financial Management, Forecasting Division, *Decennial Census Counts of Population for Counties*, 2017; 2015-2040: Washington Office of Financial Management, *2012 Projections, County Growth Management Population Projections by Age and Sex: 2010-2040*, Final Projections, Medium Series, 2010 to 2040, 2012; 2040 & 2050: City of Pullman, *Comprehensive Plan*, 1999.

<sup>12</sup> 1890-2010: Washington State Office of Financial Management, Forecasting Division, *Decennial Census Counts of Population for Cities and Towns*, 2017; 2015-2055: City of Pullman, *Comprehensive Plan*, 1999

<sup>13</sup> Whitman County was established in 1871.

<sup>14</sup> The sizable increase in Pullman's population between 1940 and 1950 is due to the inclusion of university students in the overall total, a policy of the U.S. Census Bureau that has continued since that time.

## Population/Demographic Opportunities and Constraints

Because Pullman is underrepresented in several demographics, opportunities exist to create a more attractive environment for senior citizens, veterans, and people with disabilities. Topography is one factor that makes mobility for seniors and disabled people more challenging in Pullman. A 2011 survey of the City's approximately 1,000 curb ramps showed that only about five of those ramps were compliant with the Americans with Disabilities Act (ADA).<sup>15</sup> The city actively is working to address this issue with each road construction project.

Enhancing ADA accessibility throughout the community is an option to make Pullman more inviting for people with disabilities. The City of Pullman ADA Transition Plan is being prepared to address these issues. A draft is expected to be complete in 2016. In addition, Pullman is looking to create an inclusive park that people (those with disabilities and those without) can enjoy at the site of Mary's Park, an undeveloped parcel of land donated to the City in 2010. Still in the planning phase, the park will include ADA-accessible play equipment, restrooms and sheltered picnic area.<sup>16</sup>

Expanding senior care services and senior housing options may help to attract a more substantial senior population. Enhancing veterans' services and establishing a veterans' center are possible opportunities for making Pullman more inviting to veterans. Promoting a family-oriented atmosphere by enhancing education programs, parks, family services and recreation opportunities may help attract a more culturally and racially diverse population.

The cost of upgrading infrastructure and expanding services for seniors, disabled people and veterans is a challenge. Developing self-sufficient neighborhoods with basic services (retail shops and schools) nearby and a sustainable tax base would improve Pullman's ability to provide the infrastructure and services.

## Housing

Pullman's housing market is a strong reflection of its location in a resident-based college community. More than two-thirds of the City's dwellings are renter-occupied (as opposed to the statewide renter-occupied housing average of about one-third). One in five residents live in group quarters (e.g., dormitories or fraternity/sorority houses). Moreover, the percentage of the population that relocates from one housing unit to another is three times the state average.

From the 1970s to the mid-1990s, pressures from university growth created an extremely tight housing market, where estimates of rental vacancies ranged from 1.2% to 3.0%. Industry standards suggest that a vacancy rate of five percent for rental units is considered optimal for the operation of the free market. At times, homeowner vacancy rates during this period were also low (decreasing to approximately 1%), which inflated the price of single-family houses in the City. Over the 20-year span from 1995 to 2015 in Pullman, 1,558 single family houses were constructed, and 2,892 apartments were added. This construction activity accounted for nearly 40% of the total single-family units in the community, and almost 35% of the multi-family units in town. As a result, the

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<sup>15</sup> Embree, Chelsea, *The Washington Times*, "4 Cities Struggle to Comply with ADA," 2015.

<sup>16</sup> City of Pullman, Mary's Park (Future), 2015.



vacancy rates for owner- and renter-occupied housing has increased to reasonable levels, as explained in further detail below.

The average age of Pullman's housing stock is young in comparison with the rest of Whitman County. According to 2015 data from the U.S. Census Bureau, only 18% of Pullman's dwelling units were built prior to 1960. For the remainder of Whitman County, 57% of the housing stock was constructed before 1960.

Of the 12,138 housing units in Pullman as of 2015 (an estimate based on 60 months of collected data), 10,732 are occupied. Of the occupied housing units, only 28.6% are owner-occupied; rental units make up more than 70% of the housing stock in Pullman. Single- and two-family housing units comprise 46% of the housing units within the City. Nearly the same percentage, 44%, of the housing units are multifamily (five or more units). The homeowner vacancy rate within the City is 2.1%, while the rental vacancy rate is 5.3%.<sup>17</sup>

The median value of owner-occupied housing within the City is \$222,900, and the median monthly rent is \$710 per rental unit. The cost of owner-occupied housing in Pullman as a percentage of household income is comparatively low. For homes with mortgages, 50.7% of households are paying less than 20% of their household income on selected housing cost, compared to 35.5% statewide. The cost of rental housing relative to income appears to be relatively high, though not surprisingly so, given the high proportion of undergraduate students. In Pullman, 61.5% of rental households pay 35% or more of their household income in gross rent, as compared to only 40.3% statewide.<sup>18</sup>

Also given the high student population, it is not surprising how transient Pullman's population is, with more than 5.6% of the population moving in 2015. By comparison, only 1.8% of the state population moved in 2015.<sup>19</sup> The transient nature of the population is likely also a causal factor in the relatively high rental vacancy rate.

Based on the average size of 2.18 persons per household in Pullman, 20% of the population living in group quarters, and the City's 2015 estimate of 12,655 existing housing units,<sup>20</sup> it is projected that Pullman will need approximately 16,881 housing units to support its population by 2060, if those statistics remain constant. **Table 2** provides a summary of projected future housing needs, based on population projections, assuming a constant vacancy rate for owner-occupied housing units of 2.8%, and an "equilibrium" vacancy rate for rental units of 5%.

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<sup>17</sup> U.S. Census Bureau, ACS 2011–2015 5-Year Estimates, *Selected Housing Characteristics (DP-04)*, 2015.

<sup>18</sup> U.S. Census Bureau, ACS, 2011–2015 5-Year Estimates, *Selected Housing Characteristics (DP-04)*, 2015.

<sup>19</sup> U.S. Census Bureau, ACS, 2011–2015 5-Year Estimate, *Selected Housing Characteristics (DP-04)*, 2015.

<sup>20</sup> Based on City of Pullman's 2015 estimate of total existing housing units (12,655).

**Table 2. Future Housing Needs**

<b>Future Housing Needs 2020–2060</b>				
<b>Year</b>	<b>Pullman Population</b>	<b>Population in Group Housing</b>	<b>Total Projected Housing Units Needed</b>	<b>Additional New Housing Units To Meet Need, Based on 2015 Existing Units<sup>21</sup></b>
2020	33,740	6,748	12,382	N/A
2025	35,725	7,145	13,110	455
2030	37,333	7,467	13,700	1,045
2035	38,621	7,724	14,173	1,518
2040	39,850	7,970	14,624	1,969
2045	41,106	8,221	15,085	2,430
2050	42,636	8,527	15,646	2,991
2055	44,166	8,833	16,208	3,553
2060	46,000	9,200	16,881	4,226

## Housing Opportunities and Constraints

Community members are interested in cultivating an adequate supply of affordable housing, mitigating sprawl and creating more walkable communities. One option to increase the supply of affordable housing in Pullman is microhousing. Making neighborhoods more self-reliant would encourage walking among the community and help increase interaction among community members. The City could look at ways to help bring more retail (small grocery stores, for example) into the neighborhoods and establish more walkable community meeting spaces.

Approximately one-third of WSU students live on campus and the remaining live in off-campus housing. WSU expects that ratio to remain the same. Given that WSU student enrollment is projected to grow in the future, and with it, the demand for student housing, the City could focus new development in a pattern of infill as a solution for mitigating sprawl and increasing the quality of neighborhoods.

## Economy

### Employment and Unemployment

Of the 28,237 people over the age of 16 living in Pullman, 42.3% are not in the labor force, compared to 35.6% statewide (an estimate based on 60 months of collected data).<sup>22</sup> As of May 2015, the unemployment rate in Pullman was 4.4%, compared to 5.4% statewide.<sup>23</sup>

<sup>21</sup> Based on City of Pullman's 2015 estimate of total existing housing units (12,655).

<sup>22</sup> U.S. Census Bureau, ACS, *2011–2015 5-Year Estimates, Selected Economic Characteristics (DP-03)*, 2017.

<sup>23</sup> US Bureau of Labor Statistics, 2015.

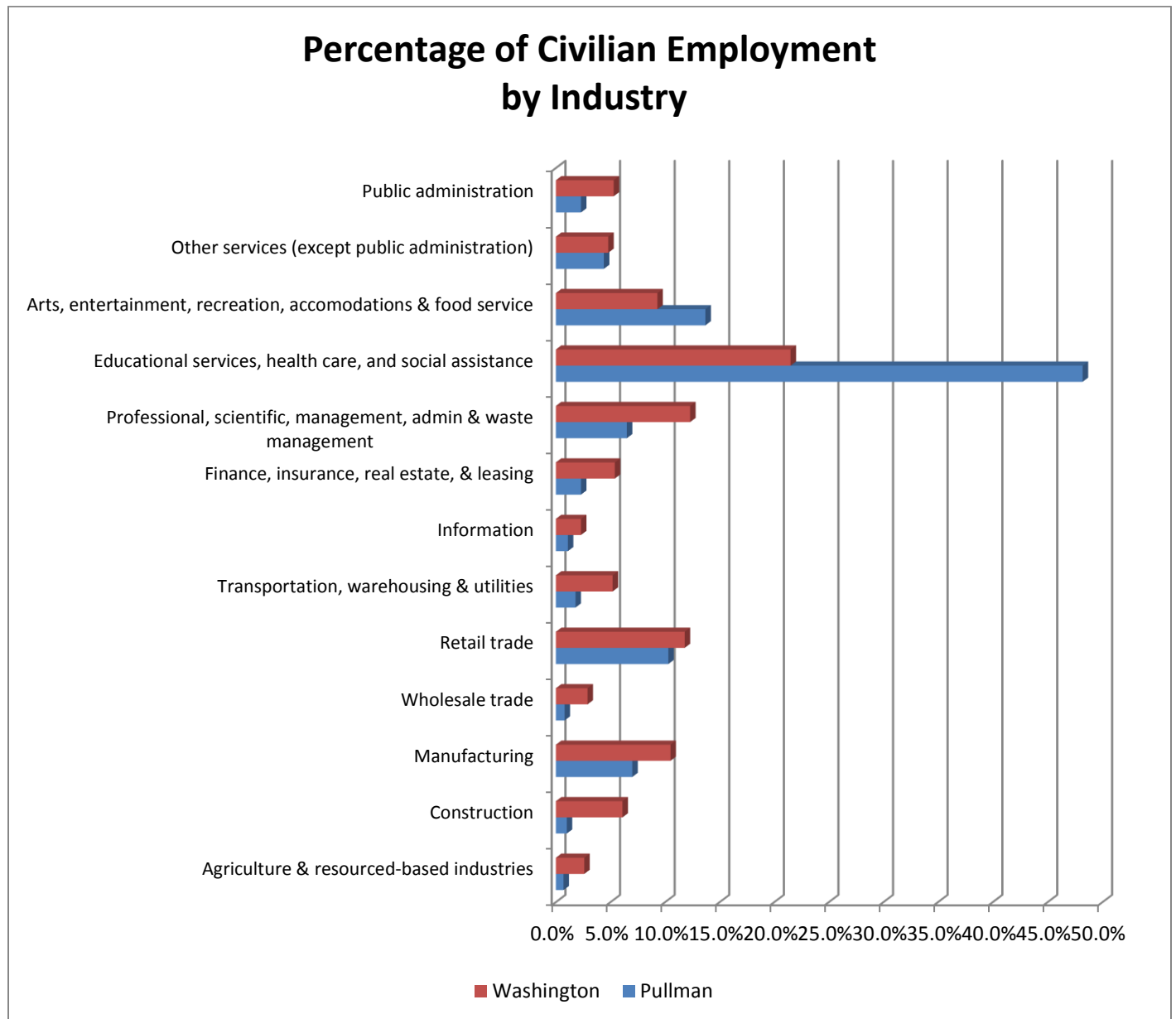
WSU and Schweitzer Engineering Laboratories are the two largest employers in the City. Other large employers include the Pullman School District, and Pullman Regional Hospital, and the City of Pullman.

Not surprisingly, because of WSU's presence, as well as other large employers including Pullman Regional Hospital and Pullman School District, employment in the educational services, health care, and social assistance industry accounts for almost half of the civilian employment in the City of Pullman. **Figure 6** provides a comparison of civilian employment by industry for Pullman and Washington State.<sup>24</sup>

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<sup>24</sup> U.S. Census Bureau, ACS, 2011–2015 5-Year Estimates, *Selected Economic Characteristics (DP-03)*, 2017.

Figure 6. Civilian Employment by Industry





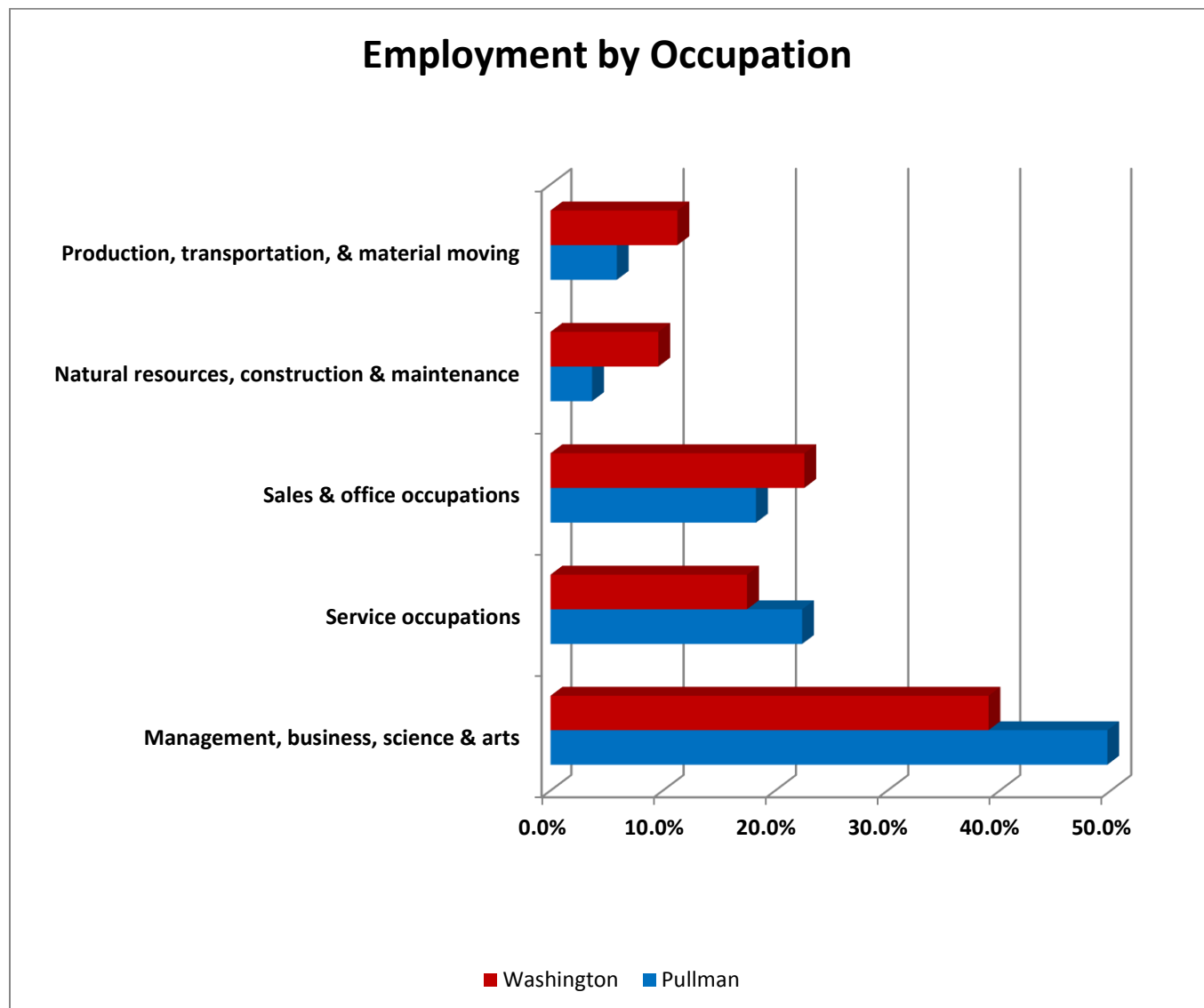
**Table 3** summarizes employment by occupation within the City of Pullman, based upon 60 months of collected data in the American Community Survey, 2011–2015. As can be seen in **Figure 6**, compared to the state as a whole, Pullman has more of its workforce in the education, health care, and social assistance and public administration fields. **Figure 7** shows that Pullman has more of its workforce in occupations in management, business, science, and the arts, as well as in service occupations, than the state as a whole.

**Table 3. Pullman Employment by Occupation** <sup>25</sup>

<b>Occupation</b>	<b>Pullman</b>
Management, business, science & arts	7,235
Service occupations	3,265
Sales & office occupations	2,665
Natural resources, construction & maintenance	532
Production, transportation & material moving	861
<b>Total Employed Civilian Population, 16 Years and Older</b>	<b>14,558</b>

<sup>25</sup> U.S. Census Bureau, ACS, 2011–2015 5-Year Estimate, *Selected Economic Characteristics (DP-03)*, 2017.

Figure 7. Comparison of Employment by Occupation



## Economic Indicators

Median household income in Pullman is \$26,228, compared to \$61,062 statewide and \$53,889 nationwide. Per capita income in Pullman is \$17, 651, or 44.4% of the statewide per capita income of \$31,762. This disparity is likely due in very large part to the high proportion of full-time university students, and the relatively low percentage of the civilian population over age 16 that is not part of the workforce.

Within the City of Pullman, 42.5% of the population has an annual income that is below the poverty line, compared to 11.3% statewide.<sup>26</sup> Clearly, this statistic is influenced by the large number of full-time university students living in Pullman, particularly given the high proportion of professionals in Pullman's workforce.

As shown in Table 4, City revenue mainly is from property taxes, sales and utility taxes, and fees. Table 4 does not revenue from the airport or sources that generated less than \$1,000,000. Major sources of revenue are property taxes and utility taxes and bills.

**Table 4. City of Pullman Revenue by Fund** <sup>27</sup>

<b>Fund</b>	<b>Source of revenue</b>	<b>2017 Revenue</b>
General	Property taxes, sales taxes, utility taxes, and fees	\$20,605,745
Utilities and capital projects	Monthly utility bills, connection fees for new development, a contribution from WSU to support the waste water treatment plant, occasional grant revenue	\$13,410,536
Transit	2 percent of the utility tax, contributions from WSU and Pullman School District, and significant federal and state grants	\$5,467,009
Arterial and street	Motor vehicle fuel tax, 2 percent of the utility tax, 0.25 percent real estate excise tax, and occasional grant revenue	\$3,654,630
Equipment rental	User departments based on actual costs, time spent, and anticipated replacement costs	\$2,541,413
Stormwater	Monthly utility bills and occasional grants.	\$1,169,000
Information systems	Various user departments based on actual costs and time spent	\$1,130,779
Government buildings	Various user departments based on actual costs and time spent	\$1,094,838

Per capita retail sales and growth in retail sales can provide insight into the health of a local economy. As of the 2007 Economic Census, retail sales in Pullman were just \$7,179 per capita, half of the per capita retail sales statewide.<sup>28</sup> While more recent total retail sales data is unavailable for Pullman, retail sales can be estimated using annual taxable retail sales data (for NAICS 44-45) available through the Washington State Department of Revenue (WA DOR), and adjusted based on historical economic census data regarding total per capita retail sales. **Figure 8** summarizes estimates for total retail sales per capita. Notably, Pullman appears to be closing the gap in per capita retail sales, with 2014 estimated at \$9,542, representing 54% of statewide per capita retail

<sup>26</sup> US Census Bureau, *2011-2015 Quick Facts*, 2016.

<sup>27</sup> City of Pullman, *Adopted Budget, Ordinance No. 16-18*, 2016; Budget at a glance, 2015.

<sup>28</sup> US Census Bureau, *2007 Economic Census of the United States*.

sales. Pullman's taxable retail sales have grown by 33% between 2007 and 2014, substantially outstripping statewide retail sales performance, which experienced only a 2% growth in retail sales during the same period.<sup>29</sup>

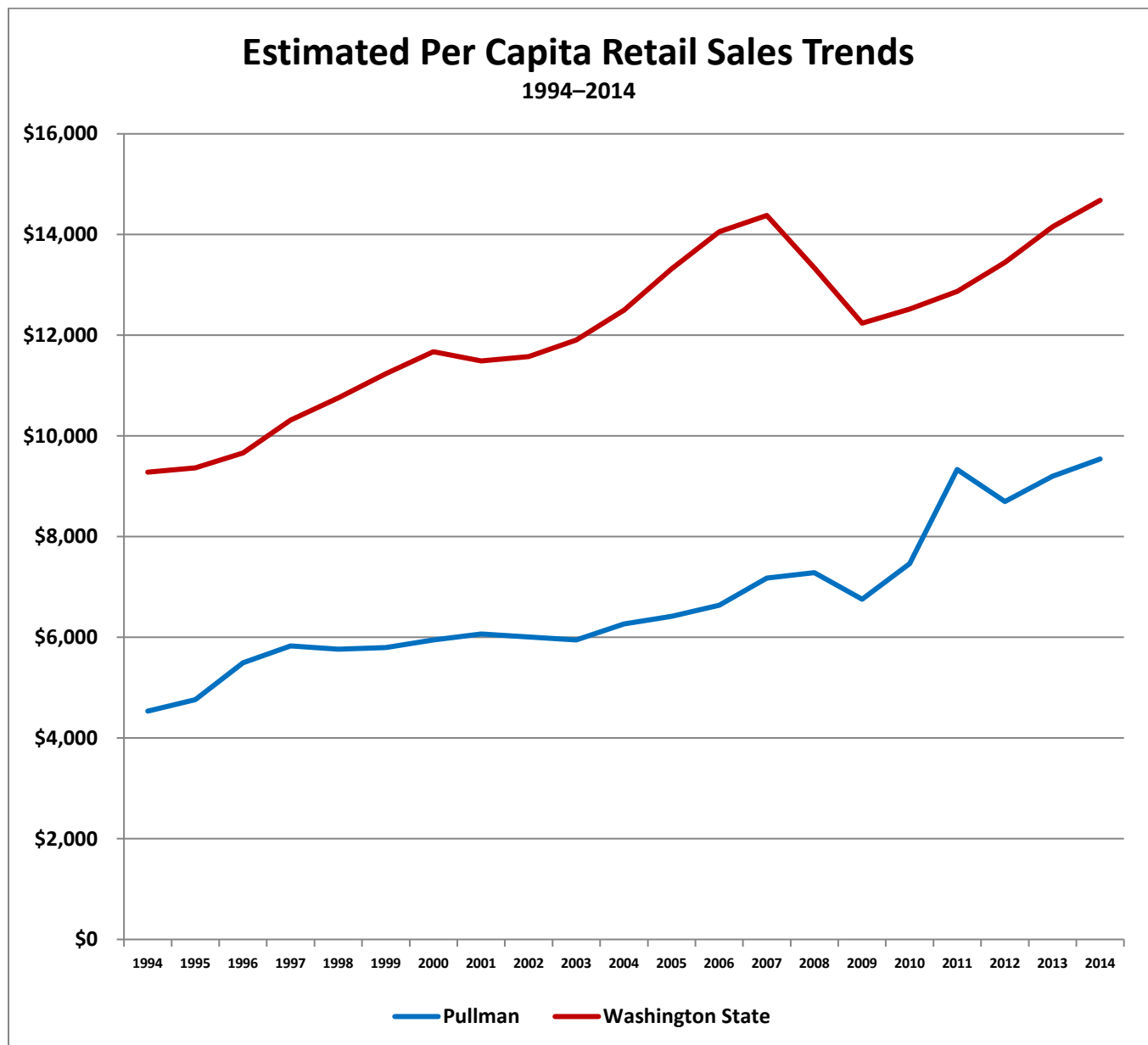
Sales tax revenue for the City can be differentiated by construction versus non-construction dollars. According to data generated by the Pullman finance department for the 15-year period between 2001 and 2015, the percentage of total sales tax revenue obtained by means of construction is decreasing over time. For the seven-year period before 2008, the average construction sales tax percentage was 4.2%; for the seven-year period after 2008, the average construction sales tax rate was 3.5%.

Passive income earned from privately rented property has a notable impact on Pullman's economy, considering the above-average proportion of residents who are renters. The majority of Pullman's residents are college students, many of whom live in rental housing. The demand for rental housing has been met by great investment in rental property by landlords, and now most of the privately owned housing is for rent. Between 1990 and 2010, Pullman's renter-occupied housing units grew from 69.1% in 1990, to 69.3% in 2000, to 71.2% in 2010, for a net increase of 3.1%. Conversely, in all of Washington, the trend has been slightly towards home ownership, with renter-occupied housing decreasing from 37.4% in 1990 to 35.4% in 2000, and then rising slightly to 37.3% in 2010, for a net decrease of 0.1%. As WSU grows, the upward trend for demand of rental housing may continue in Pullman.

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<sup>29</sup> Washington State Department of Revenue, *Taxable Retail Sales Tables, 1994–2014*.

Figure 8. Estimated Per Capita Retail Sales Trends



## Economic Development in Pullman

The Port of Whitman, the Southeast Washington Economic Development Association (SEWEDA) and the Palouse Knowledge Corridor promote business development in the community. The Pullman Chamber of Commerce serves as an advocate for existing businesses within the community and provides a forum for joint promotion of Pullman's commercial enterprises.

## Economic Opportunities and Constraints

There is opportunity to add more retail into the City to help boost retail sales, increase retail jobs and increase the self-sufficiency of Pullman. There are few places for residents to spend disposable income in the City, and sales potentially may be lost to other regional shopping centers, such as the Palouse Mall, which is just a few miles east of Pullman in Moscow, Idaho.

Pullman has the opportunity to utilize in-depth research about the local economy by economic development organizations to identify and address limitations on the health of the local economy. The City could work with existing and potential industries in the area, and in collaboration with the Port of Whitman, SEWEDA, and the Chamber of Commerce, to identify and address barriers that employers face locally. Utilizing market research and information from employers may help create an opening for a new and enhanced business climate to increase economic performance and job diversity. The establishment of a research innovation partnership zone (IPZ) would leverage the opportunities at WSU, Schweitzer Engineering Laboratories, and other Pullman businesses and institutions. The Washington Department of Commerce designates IPZs, which require three partners: a workforce organization, a research university, and a private globally competitive company. Currently, the state does not provide funding for IPZs.<sup>30</sup> Development at the airport is currently constrained by the availability of utilities. City expansion of utilities would enable the airport to attract businesses that require aviation accessibility and would expand Pullman's industrial base.

The Palouse region has rich agricultural lands, and Pullman was originally founded as an agricultural hub, yet there is very little local food production today. Community farming programs and small-scale farming and food sharing programs can contribute to economic health and decrease food insecurity in the area. Agricultural tourism, such as winery open houses and "u-pick" farms, could provide the opportunity for enhanced returns for farmers and protection from changes in the markets for commodity crops, as well as increased spending on lodging and shopping in Pullman.

## Natural Environment

### Topography

As discussed previously, Pullman developed around the confluence of Missouri Flat Creek and Dry Fork Creeks with the South Fork of the Palouse River in the valleys separating the City's four hills. Today the developed area within Pullman encompasses the river valleys and the four hills. The topography creates development

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<sup>30</sup> Washington State Department of Commerce, *Washington State Innovation Partnership Zones*, 2017.



challenges, from flooding in the valleys to the challenges of building and infrastructure development created by the steep slopes of the City's four hills. A topographic map of the City is provided as **Figure 9**.

United States Department of Agriculture's Natural Resource Conservation Service (NRCS) data indicates that the land within Pullman predominantly falls within the range of 16–30% slopes, with 82% of the land falling within that category. Approximately 5% of the land in the planning area is greater than 30% slope. Only 14% falls within the 0–5% slope range, and those areas primarily follow the contours of Missouri Flat Creek, Dry Fork Creek, Paradise Creek and the South Fork of the Palouse River, and are thus subject to periodic flooding. **Figure 10** depicts the slope gradient in the Pullman planning area.<sup>31</sup>

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<sup>31</sup> USDA Natural Resources Conservation Service, *Soil Survey*, 2015.

**Figure 9. Pullman Topographic Map**

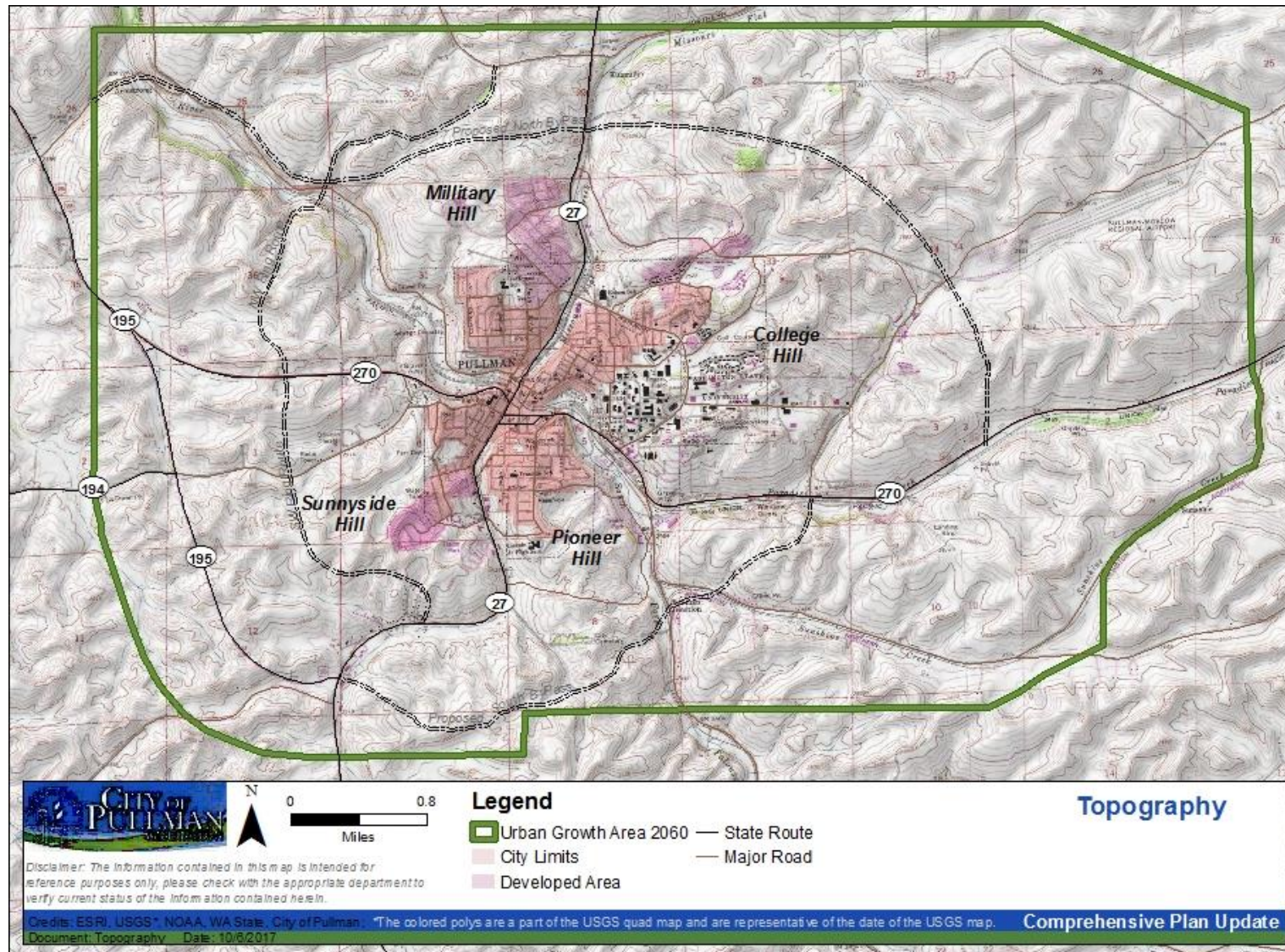
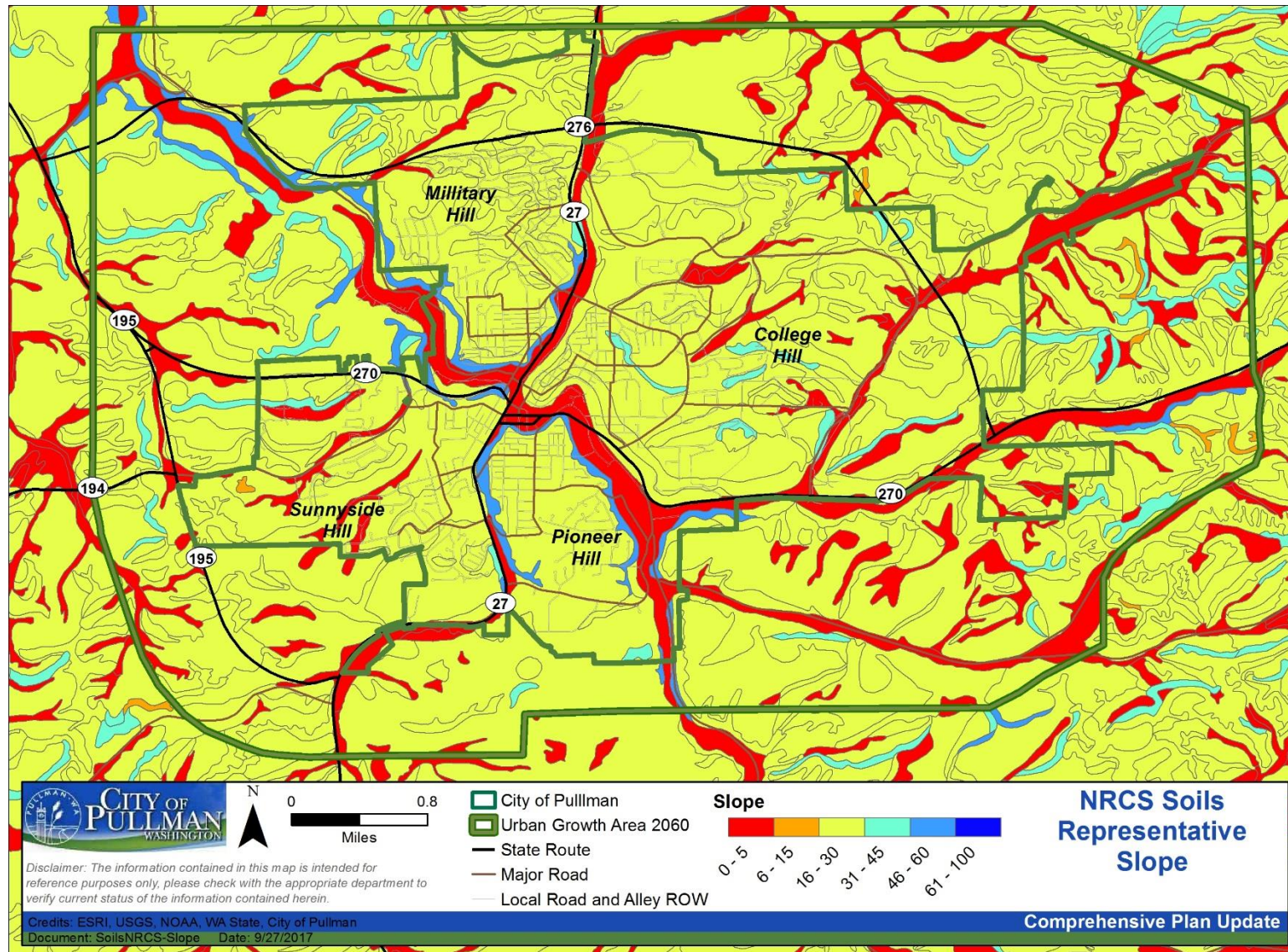




Figure 10. NRCS Representative Slopes in the Pullman Area



## Soils

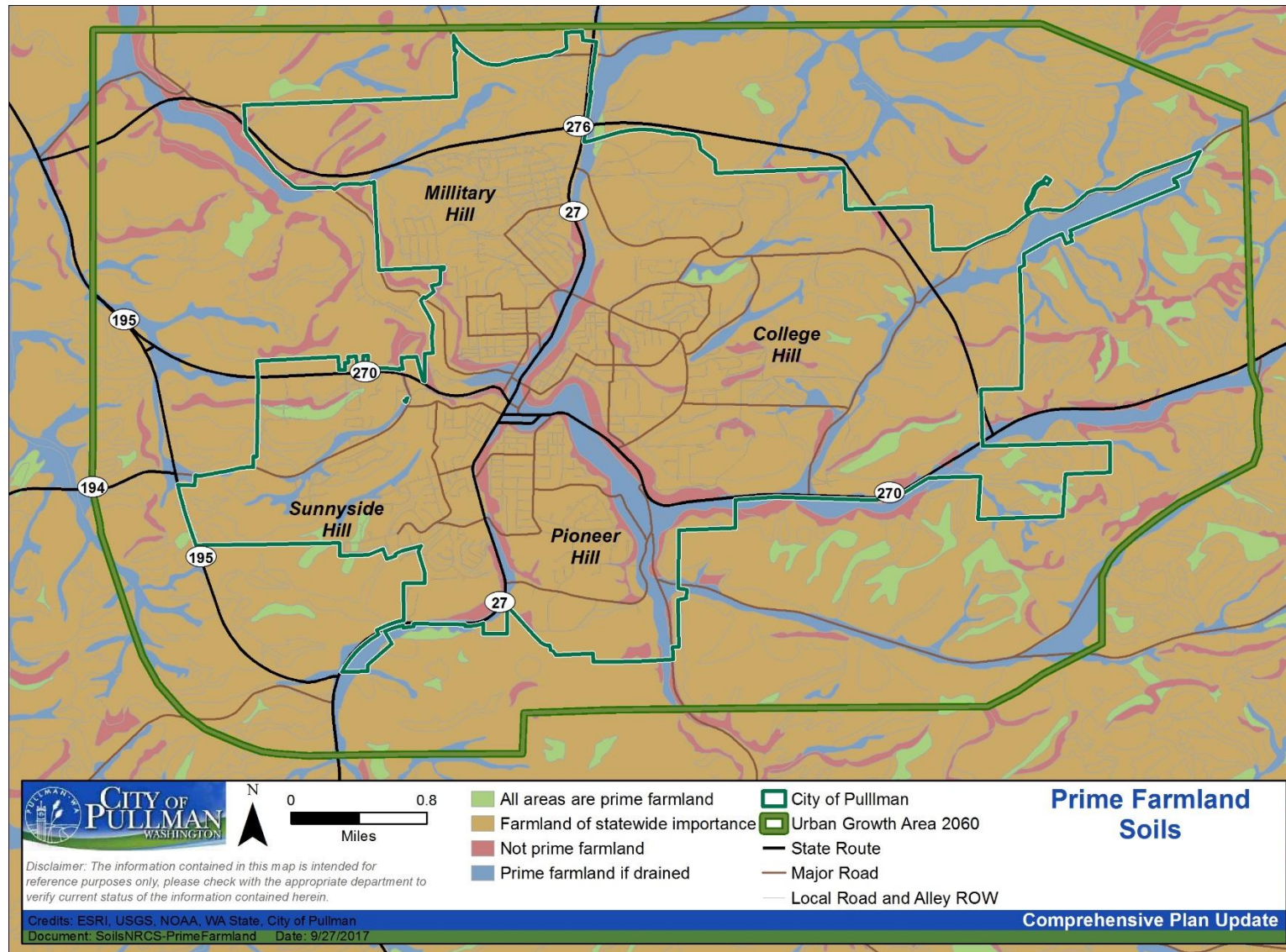
Whitman County and the rolling hills of the Palouse are well known for their agricultural soils. Not surprisingly, outside of Pullman, agriculture is the major economic engine for the county. Even within the Pullman planning area, 80% of the lands are considered farmland of statewide importance; 3% of the land is considered prime farmland; and 10% is prime farmland if well drained (based on soil type). Only 6% of the land in the planning area is considered “not prime farmland” by the NRCS. **Figure 11** maps the location of the Prime Farmland Soils within the Pullman planning area.<sup>32</sup>

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<sup>32</sup> USDA Natural Resources Conservation Service, *Soil Survey*, 2015.



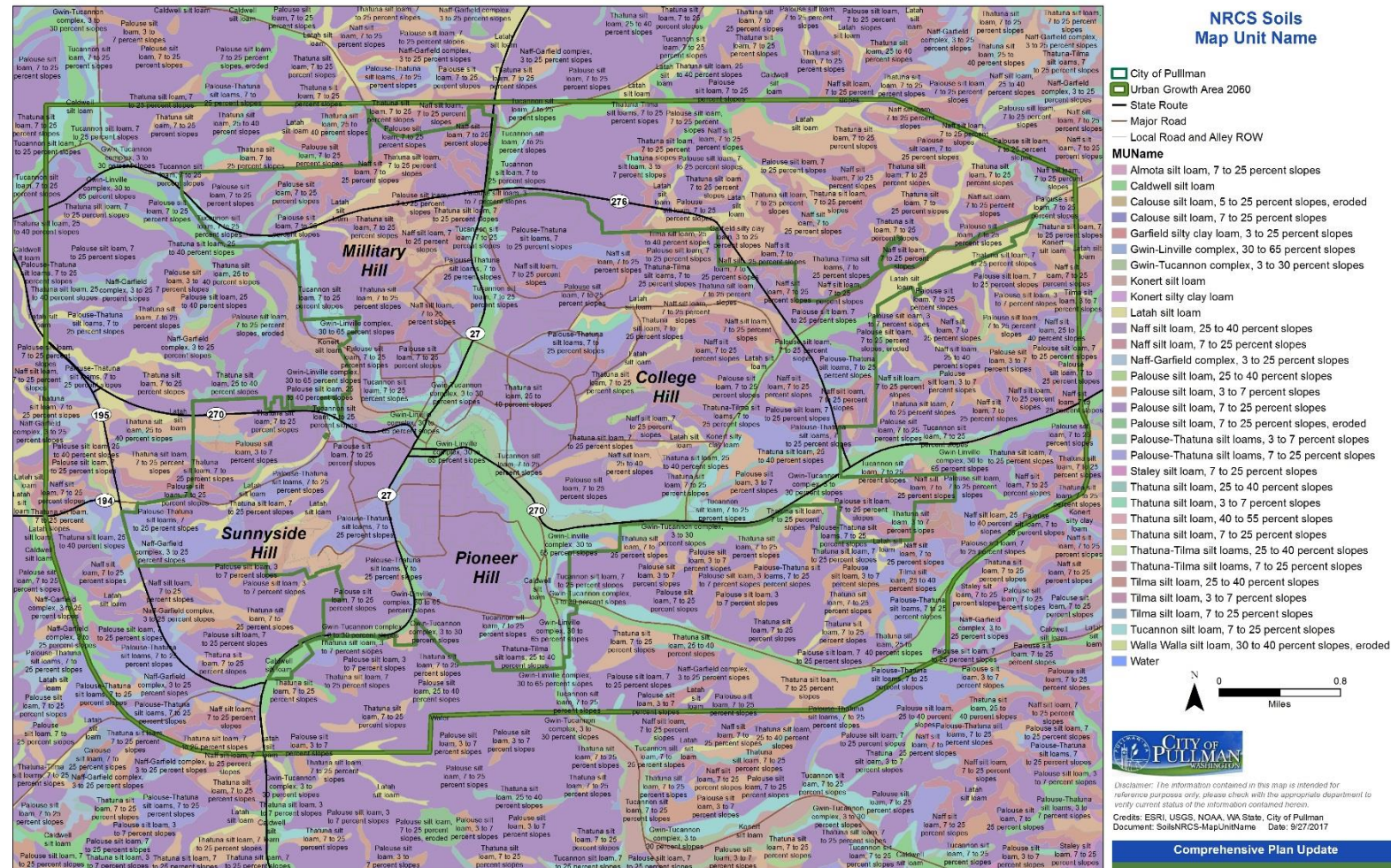
Figure 11. Prime Farmland Soils





The NRCS Soil Classification Map for the Pullman planning area is depicted in **Figure 12.**<sup>33</sup>

**Figure 12. NRCS Soil Classification Map**



<sup>33</sup> USDA Natural Resources Conservation Service, *Soil Survey*, 2015.

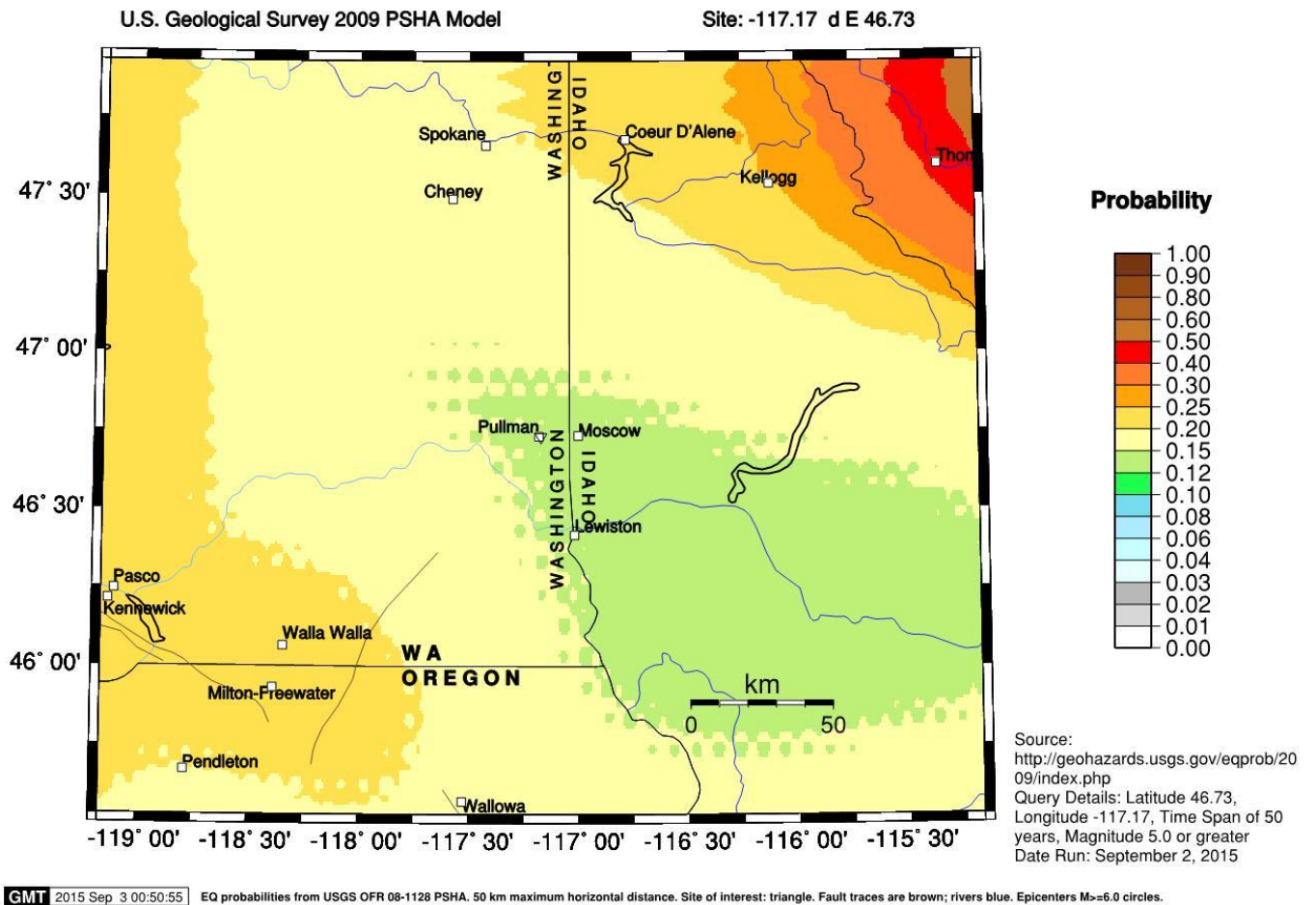


## Seismic Zones and Risk Categories

Pullman has a moderate earthquake risk. The United States Geological Survey (USGS) earthquake hazards database shows a small probability, between 0.12 and 0.15, of a moderate earthquake (between magnitude 5 and 5.9) occurring within 31 miles of Pullman within the next 50 years (see **Figure 13**). The closest earthquake in the past 30 years occurred 4 miles to the north-northeast and had a magnitude of 2.2. The largest earthquake occurring within the past 30 years was a 3.8 magnitude in 1998 and occurred approximately 18.7 miles to the southeast.

Figure 13. Probability of Moderate Earthquake

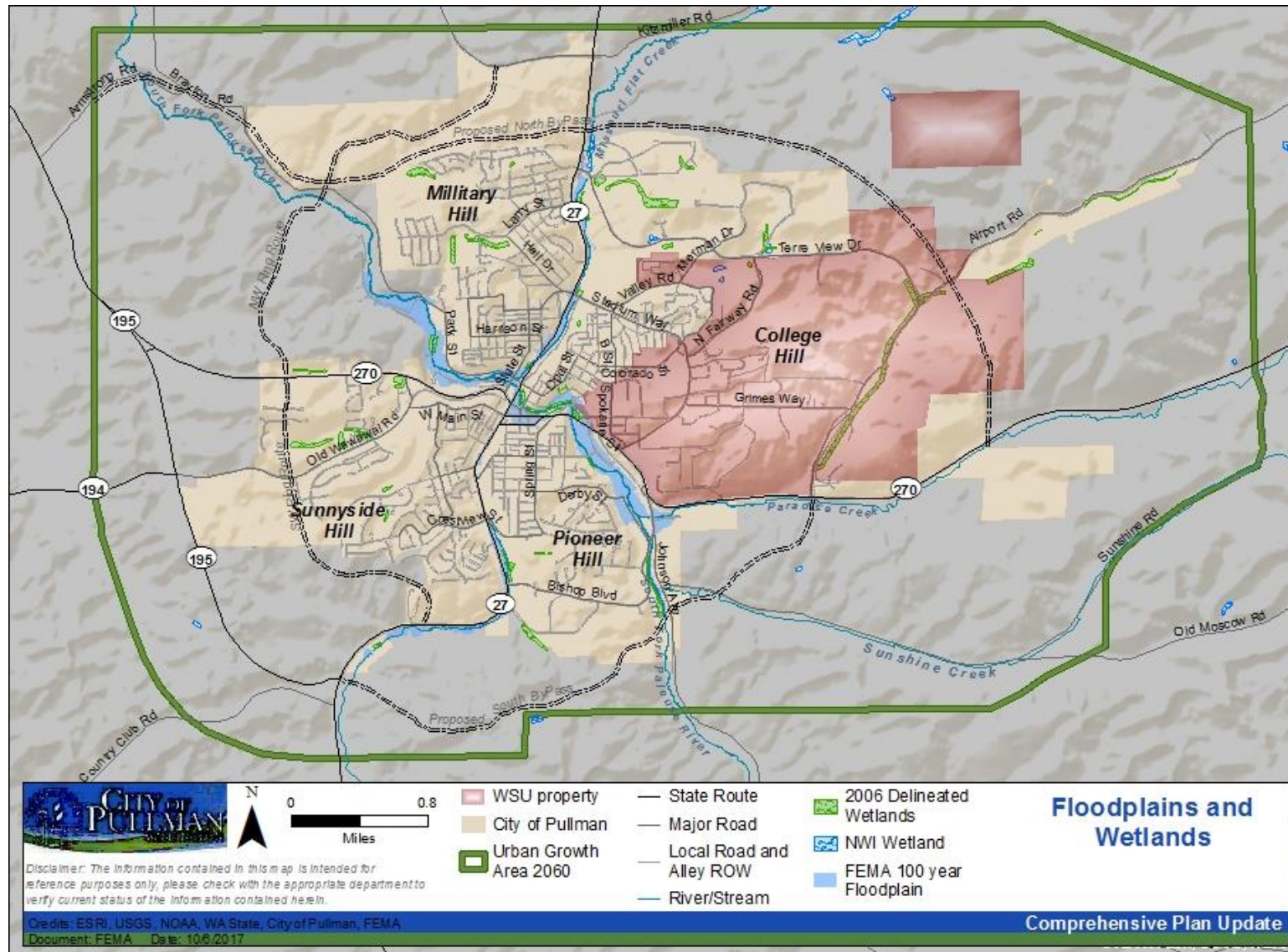
Probability of earthquake with  $M > 5.0$  within 50 years & 50 km



## Floodplains

The Federal Emergency Management Agency (FEMA) conducts flood insurance studies to identify a community's flood risk. Hydraulic analyses, statistical data for river and stream flows, and rainfall and topographic surveys are used in the study. This information is then used by FEMA to create the flood hazard maps for an area. Floodplains (areas that may experience frequent flooding or are affected by severe storm events) are shown as high-risk areas on the FEMA flood hazard maps. The last FEMA flood hazard map for the Pullman area was prepared in 1981, and there have been some updates. FEMA is currently engaged in the process of updating these maps. The Pullman City Code also addresses development within the floodplain in Chapter 17.100. **Figure 14** shows floodplains and wetlands within Pullman. Designated 100-year floodplains are along the SFPR, Missouri Flat Creek, Dry Fork Creek, Paradise Creek, and Airport Road Creek.

Figure 14. Pullman Floodplains and Wetlands



## Wetlands

National Wetlands Inventory wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act or other state or federal statutes. Within Pullman, the U.S. Fish and Wildlife survey has identified 23 acres of freshwater emergent land, 3 acres of forested/shrub freshwater wetlands and 7 acres of freshwater ponds.<sup>34</sup> Development affecting these areas is subject to regulation. **Figure 14** shows the wetland areas, which are along the waterways, but also scattered in all four quadrants.

## Priority Habitats and Species

The United States Fish and Wildlife Service (USFWS) maintains a list of sensitive species and their critical habitats that are protected under the Endangered Species Act. Potential development impacts on species that have been identified as “endangered” or “threatened” are regulated. The USFWS has identified two species within Pullman that are considered to be threatened. The Yellow-billed Cuckoo, a brown and white bird with a yellow bill that is about 12 inches in length, is native to Pullman and the surrounding region, and is listed as a threatened species.<sup>35</sup> Pullman’s second threatened species is Spalding’s Catchfly, a leafy plant with lance-shaped flowers with short white petals.<sup>36</sup> The Endangered Species Program also protects habitats that are considered critical for sensitive species against impacts of development activities. There are currently no critical habitats for sensitive species identified within Pullman’s urban growth area, and there are no National Wildlife Refuge lands.

The Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act prohibit any activity affecting birds unless authorized by the USFWS. Several species of birds that are native to Pullman and the surrounding region are listed as birds of conservation concern and are protected under the Migratory Bird Treaty Act either year-round or seasonally. They are: Bald Eagle, Calliope Hummingbird, Cassin’s Finch, Eared Grebe, Flammulated Owl, Fox Sparrow, Lewis’s Woodpecker, Olive-sided Flycatcher, Peregrine Falcon, Rufous Hummingbird, Short-eared Owl, Swainson’s Hawk and Willow Flycatcher.<sup>37</sup>

## Natural Environment Opportunities and Constraints

The cleanup of the South Fork of the Palouse River is an important stormwater management project for Pullman, because the river bisects the City.

As the City continues to grow, the growth could enable new development that incorporates connectivity between natural spaces. This connectivity will benefit residents by providing interconnected green areas to enjoy within the City and also will provide wildlife with safe corridors instead of fragmented or “island” habitats.

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<sup>34</sup> USFWS, *IPaC Trust Resource Report*, 2017.

<sup>35</sup> USFWS, *Environmental Conservation Online System: Species Profile for Yellow-Billed Cuckoo (Coccyzus americanus)*, 2015.

<sup>36</sup> USFWS, *Environmental Conservation Online System: Species Profile for Spalding’s Catchfly (Silene spaldingii)*, 2015.

<sup>37</sup> USFWS, *IPaC Resource List*, 2017.



## Historic and Cultural Resources

### College Hill Historic District

In 1890, Washington Agricultural College Experiment Station and School of Science was founded. It later was called Washington State College, and now is called Washington State University. Growth of the school led to the development of College Hill and Military Hill. Continued growth of the school has required students, faculty and staff to find housing on the other residential hills of Pullman.<sup>38</sup> The College Hill Historic District is a single-family residential housing district primarily housing staff, faculty and students of WSU. The district has been listed on the National Register of Historic Places since 2006. The area of the district is 23.7 acres, and it is bounded roughly by NE Stadium Way on the north, NE B Street on the east, NE Howard Street on the south and properties on the west side of NE Indiana Street on the west. Of the 146 buildings and structures within the district, 113 are considered to contribute to its historic character. The period of significance for the district is 1888 to 1946.<sup>39</sup>

The City of Pullman recognizes the need to rehabilitate the College Hill Historic District and its environs by enhancing neighborhood and housing conditions and expanding vehicle parking options. City plans state that new development within this district should be designed using standards that are consistent with the character of this historic neighborhood.

Most of the streets on College Hill are narrow, and parking is a perennial problem for residents. This problem has been made worse as more of the single-family homes are converted into apartments or multi-tenant structures. All of the properties in the district are located on the north slope of College Hill. The properties within this district are characterized by long, narrow and rectilinear property lines. Many properties are set back from the street and have open front yards. Many of the properties are backed up to alleys that provide access to garages and parking. The predominant house styles are: Colonial Revival, 29%; Tudor Revival, 14%; and Bungalow/Craftsman, 30%.<sup>40</sup>

### Downtown Historic Survey

The Downtown Historic Survey of Pullman was conducted in 2014 to catalog historic resources. The survey determined that five of the survey sites—the Washington National Guard Armory, Cordova Theater, Anawalt/Mason Building, Jackson Block/Grand Theater, and the U.S. Post Office—appear individually eligible for inclusion in the National Register of Historic Places. Portions of the survey area are potentially eligible for listing as a historic district in the National Register; 36 of the survey sites would be included as contributing sites within that district. The majority of the area appears eligible for a downtown historic district. The period of significance, which includes all of the City's major building style trends, spans from around 1890 to around 1960.<sup>41</sup>

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<sup>38</sup> National Park Service, National Register of Historic Places Registration Form, *College Hill Historic District*, 2006.

<sup>39</sup> Washington State Historic Preservation Office, *NPS Form 10-900: National Register of Historic Places Registration Form for College Hill Historic District*, 2006.

<sup>40</sup> Washington State Historic Preservation Office, *NPS Form 10-900: National Register of Historic Places Registration Form for College Hill Historic District*, 2006.

<sup>41</sup> A.D. Preservation, *Reconnaissance Survey for Downtown Pullman*, Whitman County, Washington, 2014.



## Maple Street Historic Survey

The Maple Street Historic Survey was conducted in 2013 and surveyed 36 buildings in the area bounded roughly by Maple Street to the west, Palouse Street to the south, Maiden Lane and Opal Street to the east and Colorado Street to the north. Small alterations to a historic building, such as replacing windows or doors with use of non-period materials or technology, can significantly decrease the historical integrity of a building. Due to these kinds of renovations, 32 of the 36 buildings inventoried have lost considerable historical value. Three of the buildings in the area remain largely intact and were determined to be eligible for listing on the National Register under Criterion C (historical significance derived from design or construction). These are three houses located at 625 Maple Street, 635 Maple Street and 410 Spaulding Street. The survey also determined that several prominent local people owned and lived in the house at 455 Campus Street, which makes it eligible for listing on the National Register under Criterion B (historical significance derived from association with the lives of persons significant in our past).<sup>42</sup>

## National Register of Historic Places

There are nine sites in the City of Pullman currently listed in the National Register of Historic Places. These are: Thompson Hall and Stevens Hall on the WSU campus, the Greystone Church at 430 NE Maple Street, the William Swain house at West 315 W. Main Street, the Gladish Building (Pullman High School) at 115 NW State Street, the Old Post Office Building at 245 SE Paradise Street, the Cordova Theater at 135 N. Grand Avenue, the College Hill Historic District, and Star Route and Palouse Street Brick Road, which consists of one-block portions of NE Maple and NE Palouse Streets where they intersect near the Simpson United Methodist Church.<sup>43</sup>

## Pullman Register of Historic Places

With assistance and technical advice from city staff, the City of Pullman's Historic Preservation Commission manages the conservation of local historic resources. The Commission, consisting of seven appointed members, acts as the primary resource for information and matters relating to the City's history and historic resources. The Commission maintains the Pullman Register of Historic Places, which currently consists of the following 11 properties:

- St. James Episcopal Church (Ruby Oak Apartments) at 600 NE Oak Street;
- Star Route and Palouse Street Brick Road;
- Pullman Veterans' Memorial located at the northeast corner of E. Main and NE Spring Streets;
- Kappa Delta Sorority at 520 NE Howard Street;
- Drucker House at 965 NE B Street;
- Phelps House at 970 NE Monroe Street; and
- Zlatos House at 630 NE Garfield Street;
- Anawalt House at 1125 NE Monroe Street;
- Hollingbery House at 1120 NE Indiana Street;
- McCulloch House at 1110 NE Indiana Street;
- McKee-Kennedy House at 1045 NE Monroe Street.<sup>44</sup>

<sup>42</sup> Rain Shadow Research, Maple Street-Maiden Ln. Inventory, 2013.

<sup>43</sup> National Park Service, National Register of Historic Places, *Spreadsheet of NRHP Listed Properties*, 2015.

<sup>44</sup> City of Pullman Historic Preservation Commission, *Pullman Register of Historic Places*, 2017.

## Certified Local Government Program

Pullman is a member of the Certified Local Government Program, which helps local governments preserve historic and cultural resources by providing access to financial and technical assistance through the National Historic Preservation Act. Certified Local Governments may also apply for grants, offer Special Tax Valuation to locally listed properties, and receive assistance and training from the State Historic Preservation Office.

## Historic and Cultural Resource Opportunities and Constraints

Residents and property owners recognize and value the historic character of the City. Although preservation of and integration with historic resources is a high priority, historic designations can constrain new development. The community sees an opportunity to implement design standards in order to ensure that new development can occur, but also can be consistent with the historic character of the neighborhood.

The College Hill neighborhood specifically has constraints related to its historic character. It was established before the use of personal motor vehicles was widespread. The streets are narrow and do not allow for much on-street parking. The limited street parking is exacerbated by the trend of more single-family housing being converted into multifamily housing. Although the community would like to see enhanced housing conditions and expanded vehicle parking options in the College Hill neighborhood, maintaining the integrity of the historic character of the neighborhood is important.

## Infrastructure

### Community Services

#### City Government

Pullman is a non-chartered code city. The City has a mayor-council form of government, consisting of a mayor and a seven-member city council, who are elected by the citizens, and one administrative officer appointed by the mayor. The City's current form of government was established in 1971, and remains stable and uncontested;<sup>45</sup> however, some community members have expressed a desire to increase accountability of local government to citizens.<sup>46</sup>

#### Schools

The U.S. Census Bureau's 2009–2013 American Community Survey estimates that in 2015 the population older than 3 years enrolled in school was approximately 20,370 in Pullman. Of this population, college or graduate school students account for an estimated 17,840—a vast majority. Of Pullman's remaining student population, 744 are high school students, 1,369 are elementary school students, 192 are in kindergarten, and 233 are nursery or preschool students.

Pullman Public School District No. 267 is composed of five schools: Franklin Elementary, Jefferson Elementary, Sunnyside Elementary, Kamiak Elementary, Lincoln Middle School and Pullman High School.

<sup>45</sup> City of Pullman, *City Council*, 2013.

<sup>46</sup> David Evans and Associates, Inc., *Pullman Comprehensive Plan Joint Commission Workshop on Visioning and Goals Meeting notes and presentation*, 2015.

WSU's Pullman campus is 1,675 acres and in 2011 had a total building square footage of 10,620,579. WSU plans an addition of 2,500,000 square feet by 2020 for a total of 13,100,000 square feet, and the addition of 8,200,000 square feet by 2030 for a total of 18,800,000 square feet.<sup>47</sup> The university enrolled 20,286 students for the 2017/2018 academic year at its Pullman campus. Of those students, 17,646 are undergraduates and 3,939 are freshmen.<sup>48</sup> Approximately 24% of undergraduates live on campus, and these are mostly freshmen, because 82% of new freshman live on campus.<sup>49</sup> WSU is looking to increase graduate student enrollment at a faster rate than undergraduate enrollment. In 2020, the university projects total enrollment to grow slightly to 21,150, with only 16,700 undergraduates, and in 2030, total enrollment is projected to be 26,000, with 18,000 undergraduates.<sup>50</sup>

Spokane Falls Community College (SFCC) Pullman Campus occupies a portion of the Math Learning Annex building on the WSU Campus.<sup>51</sup> SFCC offers day, evening and online classes. In the fall quarter of 2015, SFCC enrolled about 200 on-campus students.<sup>52</sup> In 2015, SFCC launched the "College in the High School" Program, which allows Pullman High School students to earn college credit. There are currently about 60 participants in this program for the 2015/2016 school year.<sup>53</sup> SFCC plans to expand evening class offerings and expand its College in the High School Program in the future.<sup>54</sup>

## Hospitals

The Pullman Regional Hospital is located on the south side of Pullman on Pioneer Hill. The 95,000-square-foot facility houses a level IV trauma center, level III stroke center and level II cardiac center. The facility features 8 maternity center beds, 16 medical/surgical private overnight beds (each with a guest bed), 2 ICU beds (each with a guest bed) and 12 private day-use surgery rooms. Among its services, the hospital offers 24-hour emergency care, a digital imaging center and three operating rooms.<sup>55</sup> At the end of 2014, the hospital employed 425 full-time and part-time employees, and 315 volunteers served more than 16,875 hours that year.<sup>56</sup>

Pullman Regional Hospital's Community Health 2020 program is currently in the planning phase of a new Endowment for Quality and Access. The plan would create a \$10 million endowment with a goal of expanding affordability and quality of healthcare services while helping to increase the organization's resiliency in the face of uncertain changes in healthcare costs and pay structures. The Community Health 2020 program includes the addition of another building to the Pullman Regional Hospital campus as a site for two new programs. The

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<sup>47</sup> Hanbury Evans Wright Vlattas and Company, *2012 Pullman Campus Master Plan Update, Volume 2*, 2012.

<sup>48</sup> Washington State University, Department of Institutional Research, *Fall 2017 Census Day Headcount Enrollment*, 2017.

<sup>49</sup> Washington State University, *Quick Facts: WSU at a glance*, 2017.

<sup>50</sup> Hanbury Evans Wright Vlattas and Company, *2012 Pullman Campus Master Plan Update, Volume 2*, 2012.

<sup>51</sup> Spokane Falls Community College, *Pullman Campus*, 2017.

<sup>52</sup> Billy Potter, personal communication, November 5, 2015.

<sup>53</sup> Billy Potter, personal communication, November 5, 2015.

<sup>54</sup> Billy Potter, personal communication, November 5, 2015.

<sup>55</sup> Pullman Regional Hospital, *Our History*, 2015.

<sup>56</sup> Pullman Regional Hospital and Foundation. *Pathways to a Healthy Future*, 2014.

Community Health and Leadership Pavilion would house the Center for Learning and Innovation, and the Center for Women's and Children's Health.<sup>57</sup>

## Fire and Police

The Pullman Fire Department serves the city, including WSU. WSU has its own police force that serves the university. The Pullman Police Department serves the other areas of the City. Two Pullman Fire Department fire stations provide service to the City of Pullman. Station 1 is located at 620 S. Grand Avenue and serves the south half of town; Station 2 is located at 55 NW Terre View Drive and serves the north half of town. In 2014, the stations received 2,381 calls—734 were fire-related and 1,647 were medical. Station 1 houses one fire truck with a pumper ladder, one fire engine and four Advanced Life Support transport ambulances. Station 2 has two fire engines, six brush units and one ambulance. Station 1 has six on-duty staff including one captain, three paramedics and two firefighters. Station 2 has four on-duty staff including one lieutenant, two paramedics and one firefighter. As the only professional fire department with paramedic staff in Whitman County, Pullman Fire Department serves unincorporated areas outside of Pullman city limits, servicing a total of 250 square miles.<sup>58</sup>

The Pullman Police Department is located in the heart of Pullman at 260 SE Kamiaken Street and serves the entire planning area. The 16,037-square-foot station houses 29 commissioned officers and 13 support staff. The minimum number of personnel on duty is four, including three patrol officers and one records specialist. The maximum is 27, with 13 patrol officers, 5 detectives, 1 school resources officer, 3 records specialists, 1 support services manager, 1 operations commander and 1 chief. Eight vehicles make up the patrol fleet: three sedans and five SUVs. One sedan and one truck are detective vehicles; an additional truck, an SUV and three Crown Victoria cars serve as administrative and company pool vehicles.<sup>59</sup>

The Washington State University Police Department patrols WSU campus and has 19 law enforcement staff members and 6 administrative staff members.<sup>60</sup> WSU has an additional security division, Cougar Security, which was created in 1985 to assist the University Police Department primarily during night hours. Cougar Security patrols the campus at night, performs safety escorts, and assists with security at sporting events, dances and concerts.<sup>61</sup>

## Public Library

The Neill Public Library holds approximately 64,000 volumes, has an annual circulation of approximately 330,000 items<sup>62</sup>, has online resources, and hosts special programs and events. It is located at 210 North Grand Avenue and is open daily except Sundays and holidays.<sup>63</sup>

## Utilities

### Water/Sewer

The Grande Ronde Aquifer, a part of the Columbia Basin Basalt Aquifer system, is the sole source of Pullman's municipal water. WSU has its own water system, separate from the City of Pullman's, which is from the Grande

<sup>57</sup> Pullman Regional Hospital, *Community Health 2020*, 2015.

<sup>58</sup> Mike Heston, personal communication, 2015.

<sup>59</sup> Gary Jenkins, personal communication, 2015.

<sup>60</sup> Washington State University, *WSU Police*, 2015.

<sup>61</sup> Washington State University, *Cougar Security*, 2015.

<sup>62</sup> Library Technology Guides, *Neill Public Library*, 2017.

<sup>63</sup> City of Pullman, *Neill Public Library*, 2017.

Ronde Aquifer. In 2014, the City pumped 907.293 million gallons.<sup>64</sup> Additionally, most of the municipal water for the neighboring city of Moscow and the University of Idaho also comes from the Grand Ronde Aquifer; the rest is pumped from another aquifer in the same basalt deposit system.<sup>65</sup> Although water storage in the Grande Ronde is vast, pumping exceeds recharge, which has resulted in the water level dropping between 1 to 2 feet per year for more than 70 years.<sup>66</sup> In 1992, the Palouse Ground Water Management Plan was enacted. Since 1992, the rate of Grande Ronde aquifer decline is 0.9 feet per year.<sup>67</sup>

The City currently engages in several water conservation measures, including managing the water system through effective metering and maintenance against leaks. The City implements additional conservation measures, including:

- Conducting water use surveys to identify ways to conserve water
- Providing conservation pricing and bills that show consumers their consumption history
- Providing free toilet leak detection dye tablets, low-flow showerheads and lawn watering timers
- Providing incentives for citizens to replace toilets, washing machines and landscaping with higher efficiency designs
- Funding the Palouse Basin Aquifer Committee and a local environmental education organization to teach various regionally specific, age-appropriate water conservation lessons to second, third, fourth and eighth grade students.

Wastewater systems that discharge into state waters are required to comply with the Clean Water Act's National Pollutant Discharge Elimination System (NPDES) permitting program and obtain an NPDES permit from the State of Washington Department of Ecology. The NPDES permit program establishes standards for water quality of surface and ground waters, effluent toxicity and sediment management, and requires plans, testing and reporting. In compliance with Phase II of the NPDES Permit Program, the City has spent the last several years developing its stormwater system infrastructure by updating policies, purchasing equipment and training staff.<sup>68</sup> As of August 2014, the City is covered under Phase II of the NPDES program, which requires public education and outreach, public involvement and participation, illicit discharge detection and elimination, construction site stormwater runoff control, post-construction stormwater management in new development and redevelopment, and pollution prevention and good housekeeping for municipal operations.<sup>69</sup> The Public Works Department has established plans to meet various stormwater treatment system requirements pursuant to compliance with the Phase II NPDES permit.

Pullman's wastewater treatment plant uses a combination of activated sludge and chlorination to treat residential and commercial wastewater before it discharges into the South Fork of the Palouse River (SFPR). In 2014, the plant treated 1,040.8 million gallons, and removed 97.7% of total suspended solids and 97.2% of organic contaminants before discharging.

<sup>64</sup> City of Pullman, *Water System*, 2015.

<sup>65</sup> City of Moscow, *Water Conservation*, 2015.

<sup>66</sup> City of Pullman, *Water System*, 2015.

<sup>67</sup> Palouse Basin Aquifer Committee, *Palouse Ground Water Basin 2015 Water Use Report*, 2016.

<sup>68</sup> City of Pullman, *Stormwater Management Program*, 2015.

<sup>69</sup> City of Pullman, *Stormwater Management Program*, 2015.

The City is currently working on expanding its sewer system with the SR 270/Terre View Drive Sanitary Trunk Sewer construction project; in 2014, Pullman invested \$1,866,280 in engineering services into the expansion. Pullman added 1.24 miles of sewer main lines to its existing 93.16 miles, expanding the system to 94.40 miles in 2014. Additionally in 2014, work crews performed maintenance on 174,965 feet of existing sewer mainlines.<sup>70</sup>

### Stormwater

The City of Pullman's Stormwater Services Division is charged with development and implementation of Pullman's Stormwater Management Program (SWMP). To plan for the great expense of maintaining and replacing aging stormwater infrastructure and equipment, the City has had a stormwater fund in place since 2009 that is supplied by fees from developed properties with impervious surfaces.<sup>71</sup> In addition to the fee-sourced funding, the SWMP applies for grants, utilizes student service hours, and implements the Adopt-a-Stream program, in which groups and businesses assume responsibility for keeping the section of stream that they "adopt" clean.<sup>72</sup>

Stormwater management in Pullman is particularly important considering that the network of storm drains, classified as a municipal separate storm sewer system (MS4), does not connect to wastewater treatment facilities, and most storm drains empty directly into the SFPR, which is on the State of Washington's list of impaired water bodies for not meeting water quality criteria.<sup>73</sup>

### Private Utilities

Private utility providers in Pullman supply natural gas; electricity; telephone; internet; TV cable; and refuse, recycling, and yard waste disposal.

### Infrastructure Opportunities and Constraints

The main opportunities for safety and emergency services are: (1) to establish a sustainable tax base so that the City can continue to provide quality public services, and (2) to work to improve speed control and traffic law enforcement in neighborhoods.

A sustainable water supply is important to ensure that Pullman is resilient and is able to support future population growth. The City currently has one water source. Although the supply is currently substantial, the rate of depletion of the water in the Grande Ronde Aquifer is faster than its rate of recharge. This presents an opportunity for the City to develop sustainable water initiatives to address water sustainability and conservation for future projected growth. Community members have expressed interest in implementing wastewater reuse and reclamation measures to help conserve the existing water resources.

There is opportunity to build new water and/or sewer infrastructure along the Pullman-Moscow Airport and Corridors as part of the airport expansion project. This additional infrastructure could help support industry in

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<sup>70</sup> City of Pullman Public Works Department, *2014 Annual Report*, 2014.

<sup>71</sup> City of Pullman, *Stormwater Management Program*, 2015.

<sup>72</sup> City of Pullman, *Stormwater Management Program*, 2015.

<sup>73</sup> City of Pullman, *Stormwater Management Program*, 2015.



Pullman and have positive economic implications. It should be noted that some Pullman citizens have expressed opposition to extending utilities in the Pullman-Moscow Corridor because they would like to see the area preserved in its existing condition.

The Pullman community has expressed interest in developing tools to address impacts from development on the area's waterways. There is opportunity to adjust regulations within the City's guidelines to limit stormwater impacts during development, and to implement wastewater reuse and reclamation programs to increase water conservation.

Pullman community members are interested in upgrading the City's communication services, particularly by building the infrastructure necessary to provide widespread access to high-speed internet. Broadband internet is not available consistently throughout the City. Community members have also expressed interest in having a choice in service providers for broadband service.

## Transportation

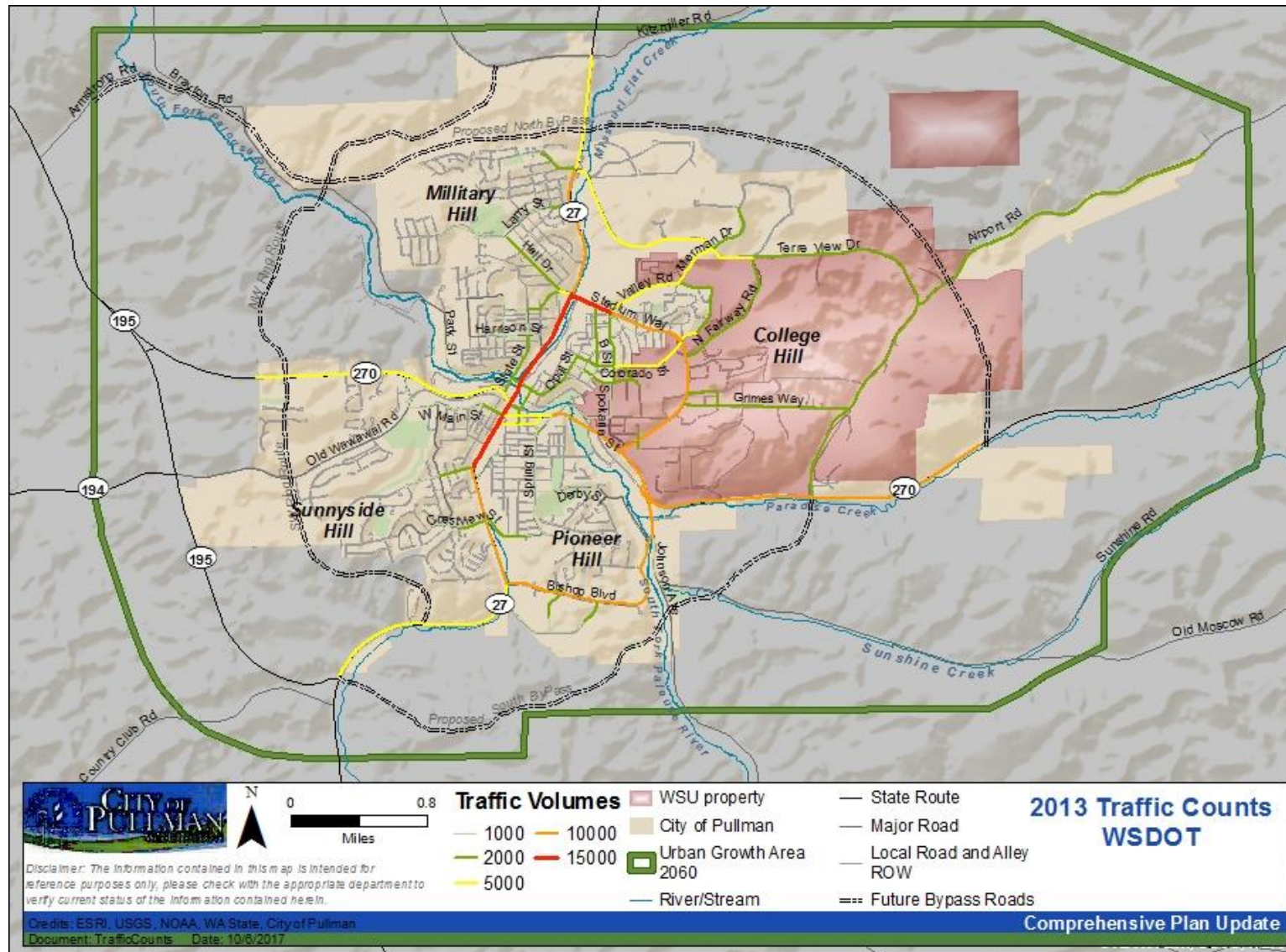
### Streets and Highways

Several national or state highways are located in the vicinity of Pullman. U.S. Highway 195 extends from Spokane to the Idaho state border just north of Lewiston, Idaho, and the city limits about a portion of this roadway on the west side of town. Washington State Route (SR) 270 runs 9.9 miles from Highway 195 through Pullman's city center to the Idaho border at Moscow, Idaho. SR 27 extends north-south through the City as Grand Avenue; overall, this route links Spokane Valley to Highway 195 just south of the Pullman city limits.

A network of roads within the City connects to the national and state highways that traverse the area. In accordance with state law, the City administers a "functional classification system" for its streets. This system involves the designation of local roadways in a hierarchical arrangement to guide future use and development of these streets and adjacent properties. Streets are classified as major arterials, secondary arterials, and collector arterials. All of the routes not designated as arterials are classified as local access streets. This functional classification system directly relates to design standards adopted by the City.

Pullman's largest traffic volumes are concentrated in the center of the City. Grand Avenue (SR 27) experiences the City's highest traffic volumes. Grand Avenue bisects downtown and is a major thoroughfare that sustains, on average, 15,000 vehicles per day. An average of 10,000 vehicles per day use Stadium Way, Bishop Boulevard, and SR 270, which passes through downtown as E Main Street and NW Davis Way. Pullman experiences its heaviest traffic central to its busiest places—major commercial districts, the WSU campus, and the high-density neighborhoods of College Hill.

Figure 15. Pullman Traffic Volume Map



## Transit

Pullman Transit is a city-owned transportation system that began operation in 1979. In addition to pass- and fare-based fixed route service throughout the city, Pullman Transit offers complimentary ADA accessible Dial-A-Ride service, limited to senior citizens and persons with disabilities.

Fixed route ridership grew to over 1.5 million annual rides in 2011 before a gradual decline to 1.3 million in 2016. Current year figures indicate growth has returned, and we are anticipating 2017 ridership figures in the 1.4 million range.

The Dial-A-Ride service has provided in excess of 15,000 rides annually since 2003, and since 2015 has been serving more than 20,000.

Pullman Transit has three prepaid fare/service contracts with local institutions. A prepaid fare and enhanced service contract with Washington State University allows their students, staff, and faculty access to all aforementioned services by simply showing a valid “Cougar Card”, as well as increased service frequency on 12 Express Routes and shuttles. A contract with the Pullman School District allows qualifying middle and high school students to ride FTA-approved Pullman Transit school bus routes by showing a pass. Finally, a contract with Spokane Falls Community College’s Pullman branch gives their students prepaid access to Pullman Transit’s fixed route service.

Intercity bus service is also available in Pullman, with a nationwide network of connections including links to the nearby communities of Spokane, WA and Moscow and Lewiston, ID. Starline Luxury Coaches (formerly Wheatland Express) operates a local charter service, and several local taxi cab companies and an emerging Uber service offer individual options.

As of December 2017, the Pullman Transit fleet consists of four 35-foot Gillig Phantom buses, three 40-foot Gillig Phantom buses, five 35-foot Gillig low floor buses, four 40-foot Gillig low floor buses, three 35-foot hybrid buses, three 40-foot hybrid buses, one 4-passenger paratransit (MV-1) style van, and four paratransit vans. In 2019, Pullman Transit plans to replace one fixed-route coach and one paratransit van, and then attempt to resume a two-year purchasing cycle. Pullman Transit will improve stops with additional seats, shelters, and solar lighting as needed.<sup>74</sup>

## Bicycle and Pedestrian Facilities

Adopted in 1996, the *City of Pullman Pedestrian/Bicycle Circulation Plan* outlines the City’s goals and methods to improve the pedestrian and bicycle transportation system. The plan aims to encourage the use of non-motorized vehicles by promoting bike and pedestrian route safety, accessibility and interconnectivity. The City evaluated the existing bike lanes and found that some were too narrow, had excessive grades, were poorly maintained, or lacked adequate measures to avoid vehicular conflicts.<sup>75</sup> The plan identifies and ranks priority

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<sup>74</sup> Wayne Thompson, personal communication, December 14, 2017.

<sup>75</sup> City of Pullman, *City of Pullman Pedestrian/Bicycle Circulation Plan*, 1996.



areas for improvement. Most pedestrian and bicycle traffic is located around the central business district and the WSU campus. **Figures 16 and 17** show the bicycle network and trails and pathways.

**Figure 16. Pullman Bicycle Network Map**

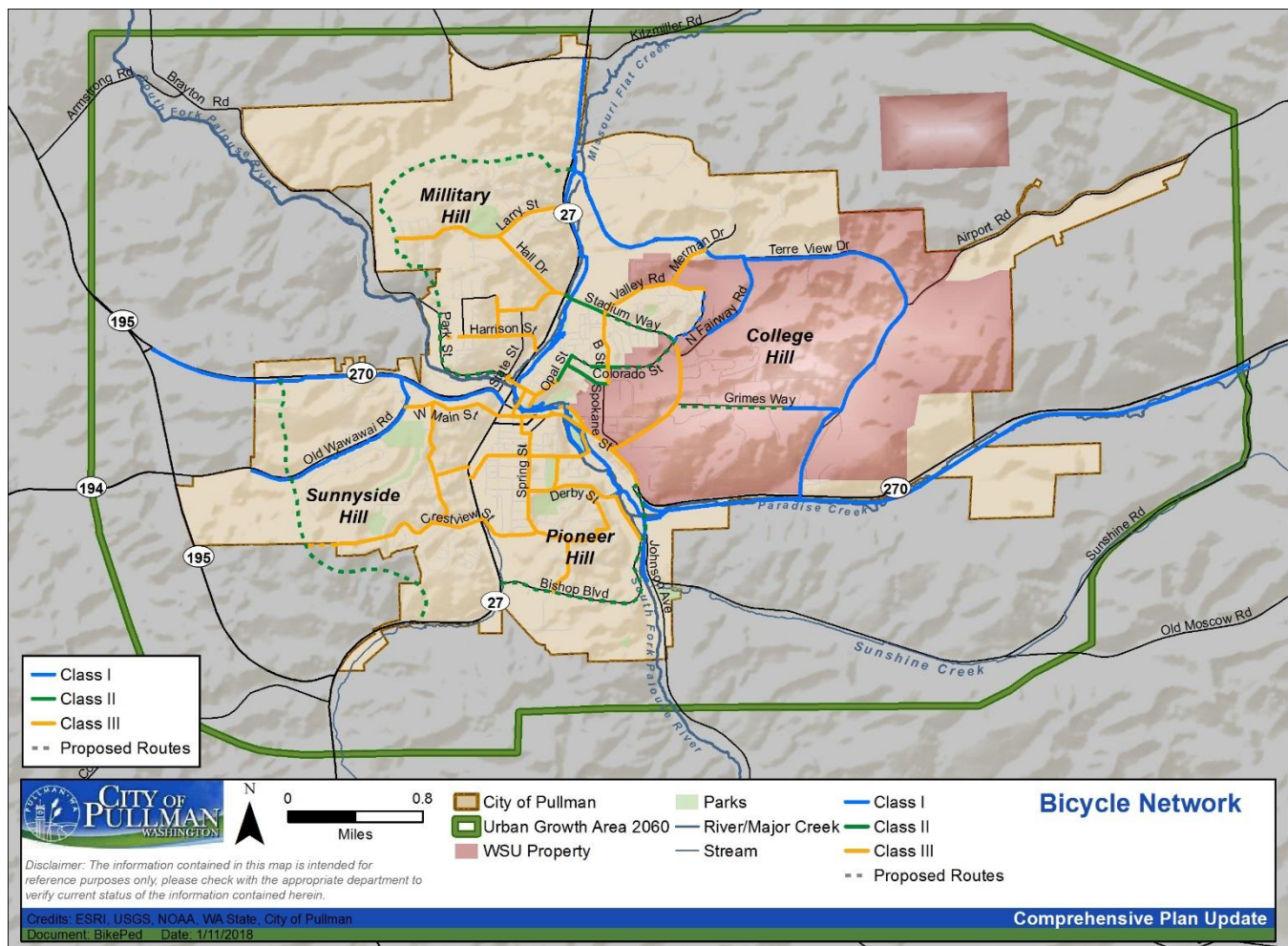
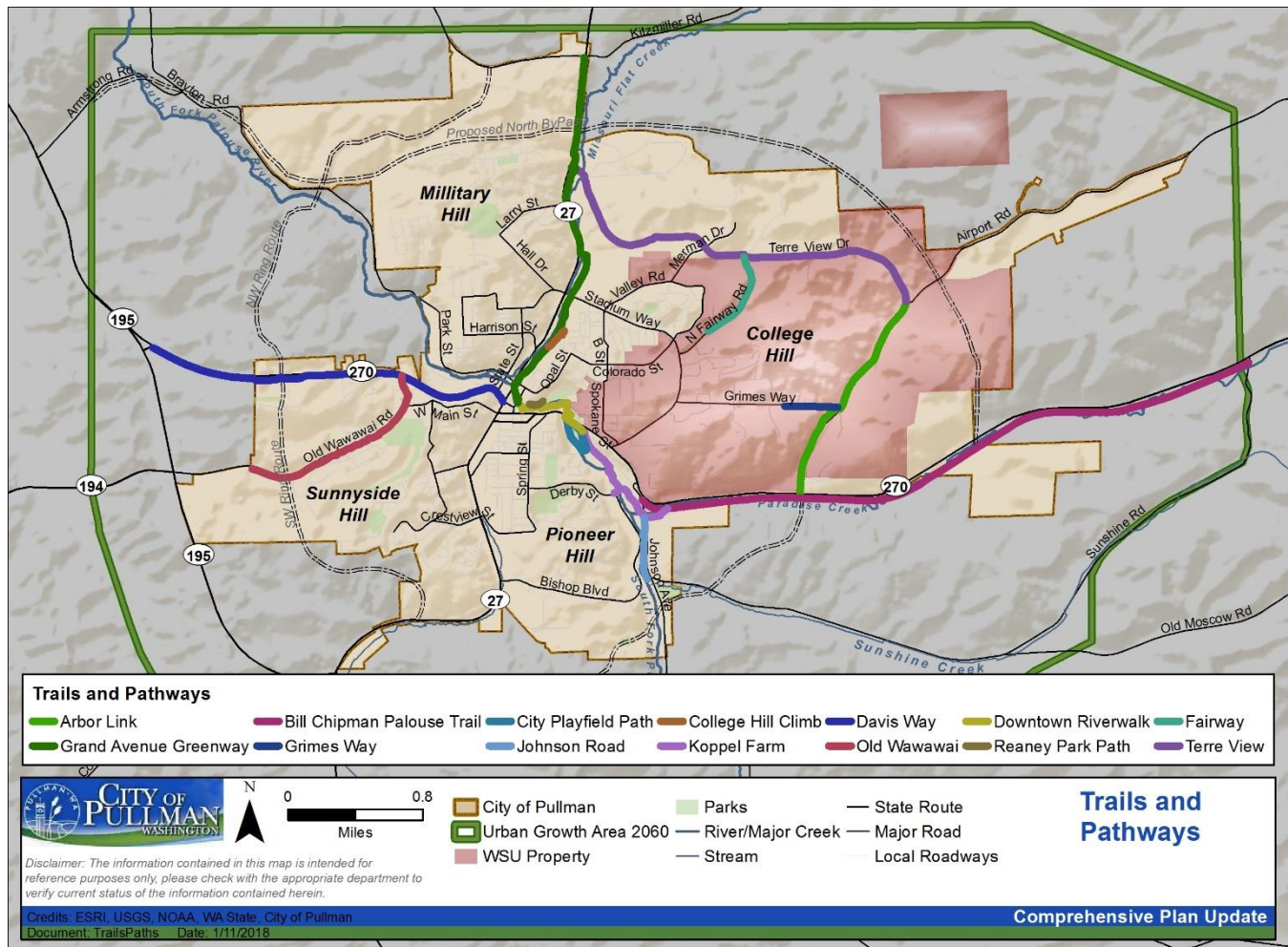


Figure 17. Pullman Trails and Pathways Map



WSU plans to improve conditions for pedestrians and cyclists on campus by creating a grid system that expands access to different points on campus separate from motorized vehicle routes. WSU plans to develop routes that pedestrians and motor vehicles must share to more of a pedestrian scale.<sup>76</sup> Although bicycle use on campus is now relatively low, WSU anticipates an increase in the use of bicycles in the future as a result of future changes in enrollment and parking availability.<sup>77</sup> The university is exploring ways to implement bike-friendly policies, including increasing the supply of secure and covered bike parking, requiring shower facilities in new buildings, striping bike lanes, and adding more bikes and stations to their Green Bike share system.<sup>78</sup>

<sup>76</sup> Hanbury Evans Wright Vlattas and Company, *Pullman Campus Master Plan Update*, 2012.

<sup>77</sup> Hanbury Evans Wright Vlattas and Company, *Pullman Campus Master Plan Update*, 2012.

<sup>78</sup> Hanbury Evans Wright Vlattas and Company, *Pullman Campus Master Plan Update*, 2012.

## Pullman-Moscow Airport

The Pullman-Moscow Regional Airport (PUW) is located approximately 4 miles from downtown Pullman and operates year-round. PUW offers direct flights daily to Seattle-Tacoma International Airport (SEA) operated by Alaska Airlines.<sup>79</sup> In 2014, the PUW served 83,868 passengers (42,343 arriving and 41,525 departing.)<sup>80</sup> Airline freight received in 2014 totaled 10,926 pounds, and freight shipped out totaled 241 pounds.<sup>81</sup>

The Pullman-Moscow Regional Airport Runway Realignment is a large-scale project funded by the Federal Aviation Administration (FAA) to help alleviate air traffic constraints symptomatic of the runway's current geometry. Plans for the new configuration involve rotating the runway about 10 degrees, which will allow the runway to be built about 400 feet longer and about 50 feet wider. The FAA uses the Airport Reference Code (ARC) to categorize airports based on design criteria to determine airplane types that may operate there. This project will bring the airport up from ARC B-II (aircraft's maximum approach speed is 120 knots, maximum wingspan is 78 feet) to ARC C-III (maximum approach speed is 140 knots, maximum wingspan is 117 feet). The project will also include construction of a taxiway to service the newly configured runway and expansion of the passenger terminal. The FAA will contribute \$110 million for the project, and an additional \$9 million will be contributed by the local region. These improvements will bring the airport up to minimum safety and capacity requirements for the commercial, charter and corporate planes already using the facilities. The project will also allow for future regional business growth. Construction is expected to be completed in 2019.<sup>82</sup>

## Railroad

### Amtrak

Although there is no passenger rail service directly to or from the City of Pullman, Amtrak offers a bus service from Pullman to Spokane, Washington, twice per day; in Spokane, passengers may connect with Amtrak passenger trains and buses. The Pullman Amtrak bus station waiting room is located at 1205 N. Grand Avenue in the Dissmore's IGA Supermarket building.<sup>83</sup>

### Freight Rail

Freight rail moves a large amount and variety of goods into and out of the Palouse region; however, the existing rail running through Pullman is currently not in service. The Palouse River and Coulee City (PCC) Rail System is a 297-mile short-line freight rail system, owned by Washington State Department of Transportation (WSDOT), that spans much of Whitman County. The P&L and PV Hooper Branches of the PCC Rail System pass through the City of Pullman; however, these sections of railroad are currently inactive.<sup>84</sup> Historically, the PV Hooper Branch of the PCC Rail System connected Pullman with the City of Colfax to the northwest. In August of 2006, a fire destroyed a trestle just east of Colfax, severing the railway that once connected the two cities.<sup>85</sup> Freight trains currently operate on the P&L Branch, which is just north of Pullman at Fallon siding, mostly picking up shipments

<sup>79</sup> Pullman-Moscow Regional Airport, *Airport Information*, 2015.

<sup>80</sup> Pullman-Moscow Regional Airport, *Airport Statistics and Passenger Data 2014*, 2015.

<sup>81</sup> Pullman-Moscow Regional Airport, *Airport Statistics and Passenger Data 2014*, 2015.

<sup>82</sup> Washington and Idaho Transportation Commissions, *PMRA Runway Realignment*, 2014.

<sup>83</sup> Amtrak, *Pullman, WA (PUL)*, 2015.

<sup>84</sup> WSDOT, *Palouse River and Coulee City Rail System 2015 to 2025 Strategic Plan*, 2015.

<sup>85</sup> WSDOT, *Palouse River and Coulee City Rail System 2015 to 2025 Strategic Plan* 2015.



of grain heading out of the region.<sup>86</sup> From studies conducted in 2008 and 2009, WSDOT determined that the cost of reconnecting Pullman and the P&L Branch with the PV Hooper Branch outweighed the foreseeable economic development benefits of this reconnection.<sup>87</sup>

## Transportation Opportunities and Constraints

The main transportation opportunities for Pullman include increasing the transportation options for residents, limiting traffic congestion, and enhancing parking and road conditions.

Enhancing residents' transportation options could be done in several ways in Pullman; increasing bus service areas and times of operation is one way to address this opportunity. Currently, no regular bus service connects Pullman to Moscow, Idaho, although the two cities have close economic ties. In addition, expanding transit service times on existing routes within Pullman would provide broader access to commuters. In addition, the community's desire to build bike and pedestrian infrastructure to enhance connectivity throughout the City has been a topic of discussion at neighborhood meetings. The community would also like to see a larger and more modern airport. Increasing the efficiency and convenience of using alternative modes of transportation can help reduce traffic congestion on motor vehicle roadways and limit the need for added parking infrastructure.

Residents have called for increased access to parking on the WSU campus and in nearby College Hill. Adding parking infrastructure on and around campus to accommodate more vehicles is one option. However, without mitigation, parking conditions will continue to worsen over time as the university grows and more students, faculty and staff live nearby and commute to the campus. The development of College Hill was conducted before the use of personal automobiles was widespread, and the resulting narrow streets in the neighborhood present a constraint to vehicle parking.

Residents would like to see traffic redirection and traffic-calming measures put in place. Currently, SR 270 and SR 27 each bisect the City. There is an opportunity to create a bypass system that would route vehicles around the City. Traffic-calming measures would help reduce vehicle speed and improve safety in more heavily trafficked areas, such as residential streets that recently have been connected to a broader network of roadways.

Addressing opportunities to improve the community's transportation efficiency would require public and private investment. The community would need to have a sustainable tax base in order to fund new transportation projects. Pullman also should look into accessing state and federal grant money and private investment to fund transportation projects.

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<sup>86</sup> WSDOT, *Palouse River and Coulee City Rail System 2015 to 2025 Strategic Plan* 2015.

<sup>87</sup> WSDOT, *Palouse River and Coulee City Rail System 2015 to 2025 Strategic Plan* 2015.



## Parks and Recreation

### Facilities

The City of Pullman Parks & Recreation 2014–2018 Five Year Plan includes an inventory of existing facilities and programs; identification of needs, goals and objectives; and recommendations for future projects. It uses the National Recreation and Park Association (NRPA) best practices as standards for several different categories of parks facilities and open space.

The City meets the NRPA-recommended standards. Currently there are two pools at The Reaney Park outdoor swimming facility, which meets the recommended standard that there is 1 outdoor pool for every 15,000 residents. The City constructed an outdoor splash pad at Reaney Park in 2015. It is 3,300 square feet in size and contains ten spray features.<sup>88</sup> The City also meets the standard for 1 indoor pool per 20,000 residents. The Pullman Aquatic & Fitness Center (PAFC) contains two pools: a warm water therapy pool and a six-lane lap pool. The Center provides year-round swimming lessons and water exercise programs. It also contains a fitness room with cable and hand weights, medicine balls, exercise balls, exercise bands, stretching mats, treadmills, recumbent bicycles, and elliptical training machines.<sup>89</sup> The Pullman School District uses the facility for swimming physical education classes throughout the school year and for girls and boys' swim teams, which meet after school from September through February. Each year the fifth grade classes from all three elementary schools participate in a swimming safety day prior to attending a weeklong outdoor camp.

The PAFC was built in 1999 and was gifted to the Pullman Education Foundation from Ed & Mary Schweitzer. Through an interlocal agreement between the City of Pullman and Pullman School District, both entities share in the use of the facility. The City of Pullman manages the daily operations and schedules the facility outside of Pullman School District use. It is open approximately 90 hours per week throughout the school year and more than 50 during the summer. Special events are also programmed throughout the year around major holidays and school breaks. The PAFC can be accessed by the public on a drop-in basis or through the purchase of monthly and annual memberships.

The City has 29 developed parks (including school parks) totaling approximately 225 acres. Paths and trails within the city limits extend more than 16 miles. The 7-mile-long Bill Chipman Palouse Trail connects Pullman and Moscow. The 11-mile-long Latah Trail runs between Moscow and Troy, Idaho. The City provides many summer and holiday programs for preschoolers, youth, teens, adults and seniors.<sup>90</sup>

The people of Pullman benefit from the recreational facilities at WSU. The WSU Student Recreation Center provides affordable day passes for public use. WSU facilities include swimming pools; cardio and weight equipment; courts for basketball, volleyball, badminton and racquetball; a running track; indoor soccer and roller hockey; and a spa.<sup>91</sup>

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<sup>88</sup> City of Pullman, Department of Parks & Recreation, *2014–2018 Five Year Plan*, 2014.

<sup>89</sup> City of Pullman Department of Parks & Recreation, *Aquatics*, 2017.

<sup>90</sup> City of Pullman, Department of Parks & Recreation, *2014–2018 Five Year Plan*, 2014.

<sup>91</sup> Washington State University, *University Recreation*, 2015.

The Pioneer Center (originally Franklin Elementary School) is located on Pioneer Hill and sits on 4.2 acres. The Parks & Recreation Department was previously located in City Hall and relocated to the Pioneer Center in September of 2000. The Pullman School District owns the Pioneer Center. Through an interlocal agreement, the Parks & Recreation Department is able to use the building as its main recreation center. Within the Pioneer Center, there are four standard classrooms, a small gymnasium, a multipurpose room, and a kitchen. Outdoor space includes a playground, children's garden, basketball court, and large green space for active play. Activities that take place at the Pioneer Center include a preschool, youth and adult dance, fitness, karate, wrestling, art and various other cultural and educational classes. Public users also use classrooms for meetings, birthday parties, and various gatherings.

Sunnyside Elementary School Gymnasium became available for Pullman Parks & Recreation to utilize for activities when it was constructed in the mid-1990s. Through an interlocal agreement, the City of Pullman and Pullman School District jointly shared the costs of the gymnasium that allows the Parks & Recreation Department to program the space for activities during all non-school hours. Activities that take place in the gymnasium include basketball and volleyball for both youth and adults, multiple sports camps, and opportunities for gym rental for public and private users.

The City has placed a proposition on the February 2018 special election ballot to acquire the Encounter Ministries Church at 190 SE Crestview Street for use as city hall in the sanctuary building and recreational services in the attached gymnasium. If the gym building at Encounter Ministries is renovated for the City's use, it is anticipated that Parks & Recreation would completely vacate the Pioneer Center and the space it occupied would revert to the Pullman School District. Within the gym building at Encounter Ministries, there would be a full size gymnasium, and seven to nine rooms that would include general classrooms, fitness room, multipurpose room, dance room, commercial kitchen, and walking track. The Senior Center currently located in City Hall also would relocate to Encounter Ministries once the remodel of the sanctuary building is complete. The expectation is that the majority of activities currently taking place at the Sunnyside Elementary School gymnasium would continue to be offered there.

## Pullman Civic Trust

The Pullman Civic Trust is a volunteer organization that since 1983 has advocated for several projects that benefit the community, including creating and maintaining trails, installing trail markers and planting trees.<sup>92</sup> The Trust is currently working with the city and other public entities to explore rail banking (a voluntary agreement between a railroad company and a trail agency to use an out-of-service rail corridor as a trail until a railroad might need the corridor again for rail service) along the stretch of the Palouse River and Coulee City Rail that runs between Pullman and Colfax.<sup>93</sup> This stretch of rail is currently inactive, and there are no plans to restore service in the near future. Rail banking this stretch of unused rail would add a multi-use path to Pullman's trail system.

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<sup>92</sup> Pullman Civic Trust, 2015.

<sup>93</sup> Pullman Civic Trust, 2015.

## Parks and Recreation Opportunities and Constraints

Ensuring that parks and recreational facilities are available in all neighborhoods is a challenge, particularly in new neighborhoods that may be lacking parks. Pullman Parks & Recreation and Pullman Civic Trust are planning projects that expand access to parks and green space for residents. In particular, creating centers for youth would be beneficial to the community. These kinds of improvements have the potential to be costly up front but can provide a long-term amenity.

At community meetings, residents have expressed their sense of fragmentation within the community due to the disengagement of WSU students with the rest of the community. One way to help bring everyone together would be to increase opportunities for face-to-face contact between student and non-student community members. Expansion of the farmers' market and other community events provide options for improving the sense of cohesiveness within the community.

Pullman Parks & Recreation benefits from cooperating with local organizations such as the Pullman Civic Trust, WSU, the Grand Avenue Greenway Committee and local businesses to accomplish common goals. Utilizing volunteers to landscape and beautify areas of the City that experience high traffic volumes and to expand recreation program offerings is one way to achieve more with fewer financial resources and to simultaneously increase social capital by bringing a diversity of community members together. Expanding programs that offer service-learning opportunities to WSU students is a good way to connect students with the non-student community and could provide abundant resources, considering that, in the 2015-2016 academic year, 9,636 WSU students volunteered a total of 87,204 hours.<sup>94</sup>

Potential specific improvements are to add ADA accessibility for Mary's Park. Potential additional facilities are a multisport complex, a community gathering center, an ice rink, a regional park, and a performing arts center.

## Land Use

### Existing Land Use and Zoning

As of 2012, there were 6,729.7 acres of zoned land inside the project planning area. The majority of that land, or 3,600.3 acres, is zoned for residential uses. The second largest land use category is the WSU campus at 1,842.4 acres. Also as of 2012, 897.6 acres are zoned for commercial use and 389.2 acres are zoned for industrial use.

**Figure 18** shows the zoning in the project planning area in 2012, and Table 4 details the acreage of land by zoning category in that year.

Pullman is divided into four distinct neighborhoods that have largely been defined by the City's natural topography. The urban core of the City developed around the confluence of Dry Fork Creek and Missouri Flat Creek along the banks of the South Fork of the Palouse River, and the valleys formed by these streams demarcate the four major hills in the community. Pullman's downtown, centered around the intersection of Grand Avenue (SR 27) and Main Street (SR 270), is approximately 25 acres in size. Commercial areas extend in

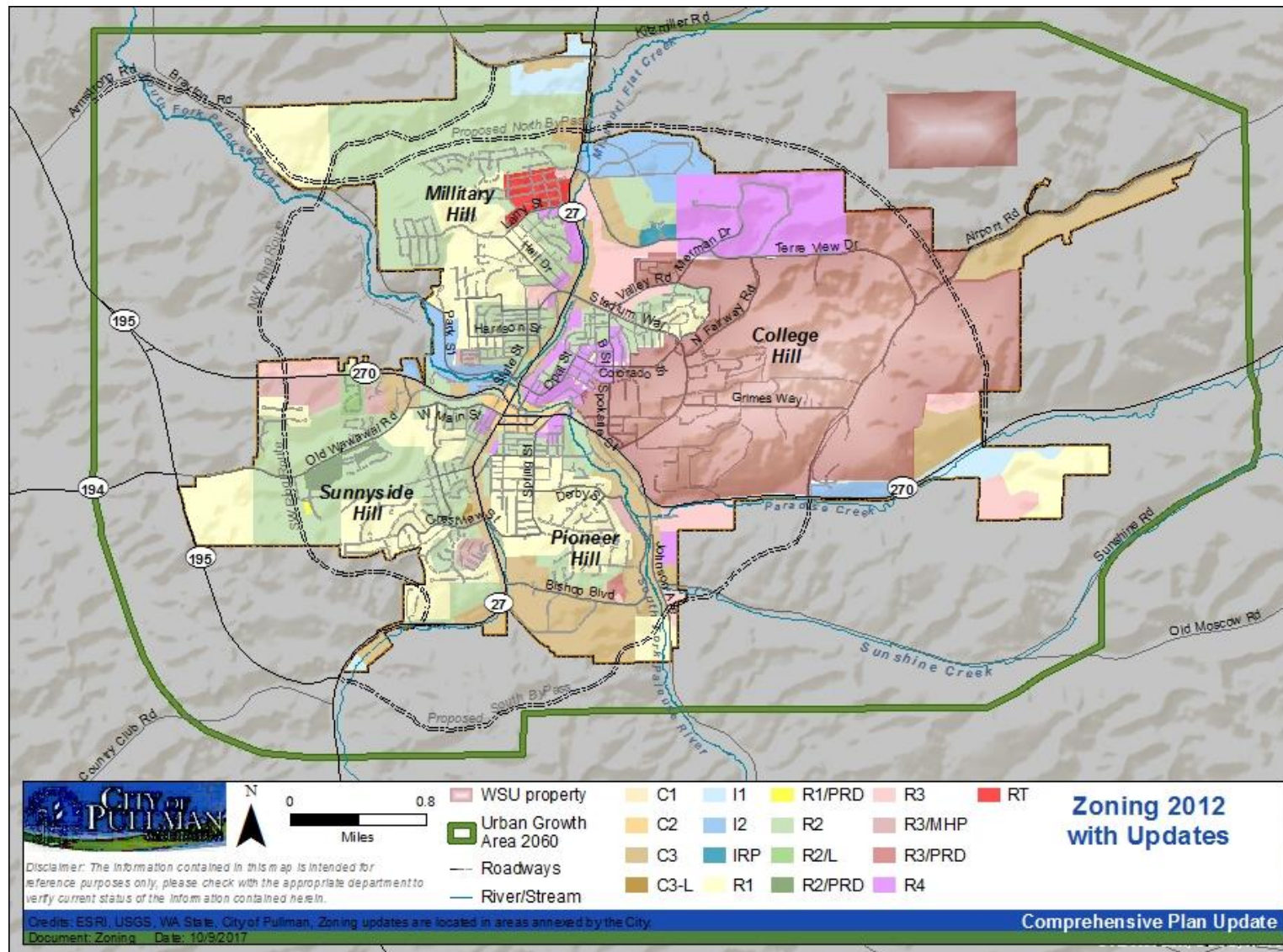
<sup>94</sup> Washington State University, *Quick Facts: WSU at a glance*, 2017.

linear fashion outward from the downtown along North Grand Avenue, South Grand Avenue, and East Main Street. Pioneer Hill, located in the southeast quadrant of the City, contains an established residential neighborhood within walking distance to downtown and WSU. It is home to several parks, as well as an elementary and middle school, and is ringed by the aforementioned commercial areas along South Grand Avenue and East Main Street, as well as a sizable business district situated on either side of Bishop Boulevard. Sunnyside Hill, located in the southwest quadrant of the City, is primarily a residential neighborhood interspersed with several parks and an elementary school. Much of Sunnyside Hill is also within walking distance to the downtown. Military Hill, located in the northwest portion of the city, is occupied by housing, industrial facilities, several parks, and an aquatics center, as well as two elementary schools and the high school. It is within walking distance of downtown and/or the North Grand Avenue commercial area. College Hill, located in the northeast section of town, is home to the WSU campus, a wide variety of housing, small pockets of commercial development, light industrial uses, and the Pullman-Moscow Regional Airport. The WSU property consumes roughly 27 percent of the total acreage within the City. Much of College Hill is easily accessible by foot to the downtown and WSU facilities.

Given its diversity, College Hill is divided into two distinct sections: College Hill Core and College Hill North. The College Hill Core area, bordered by North Grand Avenue, East Main Street, and Stadium Way (excluding the WSU campus) contains a mix of low and high density residential development, fraternity and sorority houses, several small neighborhood commercial areas, and three parks. The northwest part of the College Hill Core is listed as an historic district on the National Register of Historic Places. The College Hill North area, which consists of that part of College Hill not included in the College Hill Core or WSU campus, is occupied primarily by apartment complexes. It also contains the Port of Whitman County Industrial Park, the WSU Research and Technology Park, and the airport. A number of high tech industries, including Schweitzer Engineering Laboratories, operate facilities in this part of town.



Figure 18. Pullman Existing Zoning, 2012



There are approximately 2,100 acres of vacant land in Pullman, with approximately half in low-density residential and one-fifth in high-density residential. Most of the low-density vacant residential is on Military and Sunnyside Hills; most of the vacant high-density residential is on College Hill to accommodate WSU housing. Most of the vacant industrial land is clustered in the north, near SR 27, and close to the Pullman-Moscow Regional Airport and the Pullman-Moscow corridor. Vacant commercial land is scattered throughout the City, but the most substantial portion of vacant land is on the south end.

**Table 5. Developed and Vacant Land, 2015**

<b>Developed and Vacant Land 2015<sup>95</sup></b>											
	<b>College Hill (NE)</b>		<b>Military Hill (NW)</b>		<b>Sunnyside Hill (SW)</b>		<b>Pioneer Hill (SE)</b>		<b>Total</b>		
<b>Land Use Classification</b>	<b>Developed</b>	<b>Vacant</b>	<b>Developed</b>	<b>Vacant</b>	<b>Developed</b>	<b>Vacant</b>	<b>Developed</b>	<b>Vacant</b>	<b>Developed</b>	<b>Vacant</b>	<b>Total Land</b>
Low Density Residential	146.6	3.6	454.8	655.9	464.3	282.2	300.8	128.8	1,366.5	1,070.5	2437.0
	6%	1%	67%	80%	71%	73%	48%	27%	30%	50%	36%
High Density Residential	231.7	253.6	48.6	42.1	81.1	68.9	37.3	60.3	398.7	424.9	823.6
	9%	54%	7%	5%	12%	18%	6%	13%	9%	20%	12%
Commercial	61.5	64.9	31.7	52.4	48.7	33.1	163.8	127.5	305.7	277.9	583.6
	2%	14%	5%	6%	7%	9%	26%	27%	7%	13%	9%
Industrial	219.9	149.4	22.6	73.8	6.7	0.0	10.3	161.0	259.5	384.2	643.7
	8%	32%	3%	9%	1%	0%	2%	34%	6%	18%	10%
Parks	8.1	0.0	22.9	0.0	37.7	0.0	39.6	0.0	108.3	0.0	108.3
	0%	0%	3%	0%	6%	0%	6%	0%	2%	0%	2%
Public Facilities	18.7	0.0	97.7	0.0	17.5	0.0	76.5	0.0	210.4	0.0	210.4
	1%	0%	14%	0%	3%	0%	12%	0%	5%	0%	3%
WSU	1,919.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,919.8	0.0	1919.8
	74%	0%	0%	0%	0%	0%	0%	0%	42%	0%	29%
<b>Total</b>	<b>2,606.3</b>	<b>471.5</b>	<b>678.3</b>	<b>824.2</b>	<b>656.0</b>	<b>384.2</b>	<b>628.3</b>	<b>477.6</b>	<b>4,568.9</b>	<b>2,157.5</b>	<b>6726.4</b>

Approximately two-thirds of Pullman's land is developed and one-third is vacant. Military Hill has the most acres of vacant land.

## Shoreline Master Program

Washington's Shoreline Management Act (SMA; RCW 90.58) was passed by the State Legislature in 1971 and adopted by the public in a referendum. Growing concern about damage being done to Washington shorelines due to unplanned and uncoordinated development was the impetus behind the SMA. Thus, the goals of the SMA were to protect shoreline resources while providing opportunities for appropriate use and public access in and around the shorelines. In 2014 and 2015, Whitman County and local cities went through a shoreline planning process. The City of Pullman Shoreline Master Program Update was adopted by the City Council early in 2016, and became effective in March of 2017.

<sup>95</sup> Pullman Comprehensive Plan, 1999; Pullman Planning and Public Works Department records; Google Earth aerial photography

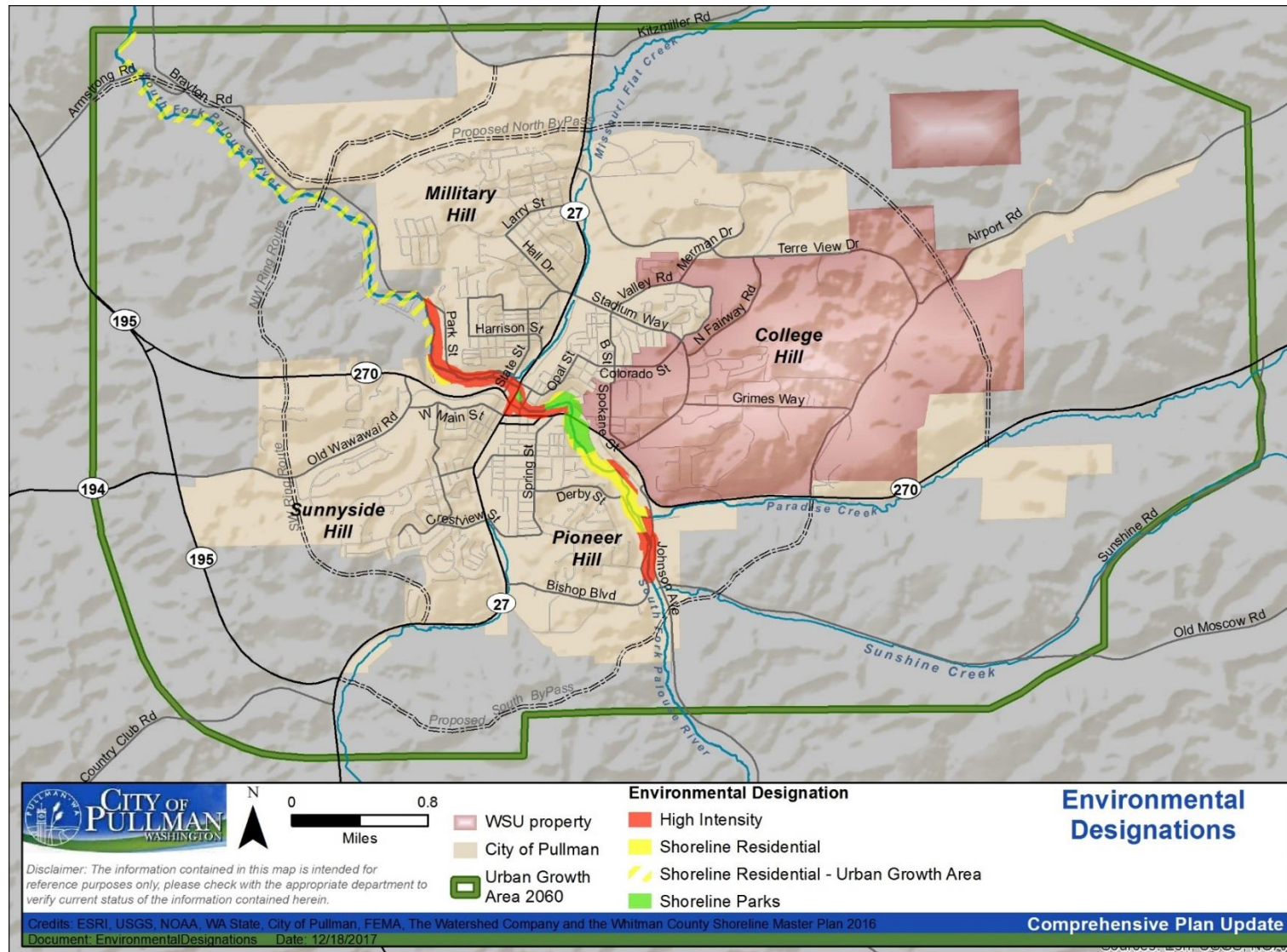
The program update guides shoreline activities to prioritize environmental conservation of shoreline land. The minimum criteria for a shoreline subject to regulation under the SMA is defined as land surrounding a stream whose mean annual flow is at least 20 cubic feet per second and a lake whose area is greater than 20 acres. The South Fork of the Palouse River, or SFPR, that runs through downtown Pullman is the only water body within the city limits that meets these criteria. Of the shoreline land of the SFPR, the study found that 56% qualified as high intensity, 25% shoreline residential, and 19% shoreline parks.<sup>96</sup> **Figure 19** shows these designations along the river. Each category regulates specific land uses differently and institutes a permitting system for some activities that have potential to affect the health of the waterway.

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<sup>96</sup> City of Pullman, *City of Pullman Shoreline Master Program Update Executive Summary*, 2015.



**Figure 19. Pullman Shoreline Environmental Designations**



## Urban Growth Area

The City of Pullman's urban growth boundary (the Urban Growth Area) designates land supply for new development until 2060. The planned growth extends in every direction, but mainly to the west and to the south of the current city limits. The City's Urban Growth Area is shown in **Figure 18**.

## Land Use Opportunities and Constraints

The land surrounding Pullman is undeveloped and is designated important farmland. New development should occur within the Urban Growth Area in order to preserve the prime agricultural land surrounding the City. The Urban Growth Area does not appear to be too great of a constraint on new development given the City's goal of utilizing infill development to limit urban sprawl.

To allow for some clusters of commercial retail close to high-density residential centers, there is opportunity for Pullman to re-zone some residential lots for retail. This re-zoning could help create walkable hubs for community activity that are located close to where people live.

Citizens have recently expressed interest in distinguishing specific neighborhoods within each of the four major hills in Pullman to foster neighborhood identity and to help assess the needs of these distinct parts of the City. Presumably, this would help community members become better acquainted with their neighbors through periodic get-togethers and/or the creation of neighborhood associations. A first step for the City in this regard would be to demarcate and label the individual neighborhoods with the help of interested residents.

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